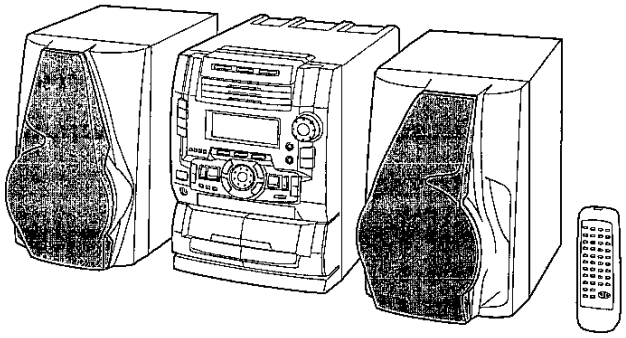
SHARP SERVICE MANUAL

No. S4826CDC3H///



CD-C3H
CP-C3H

COMPACT disc DIGITAL AUDIO

R·D·S EON

- SRS technology Licensed from SRS Labs. SRS technology holds the following patents: U.S. Patent No. 4,748,669 and U.S. Patent No. 4,841,572.
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DOLBY B NR

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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CD-C3H and CP-C3H constitute CD-C3H.

• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

SAFETY PRECAUTION FOR SERVICE MANUAL

WARNINGS

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1. THEREFORE IT IS IMPORTANT THAT THE FOLLOWING PRECAUTIONS ARE OBSERVED DURING SERVICING TO PROTECT YOUR EYES AGAINST EXPOSURE TO THE LASER BEAM.

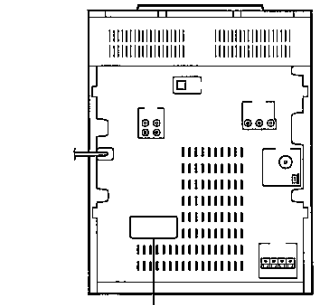
1-WHEN THE CABINET IS REMOVED, THE POWER IS TURNED ON WITDOUT A COMPACT DISC IN POSITION AND THE PICK-UP IS ON THE OUTER EDGE THE LASER WILL LIGHT FOR SEVERAL SECONDS TO DETECT A DISC. DO NOT LOOK INTO THE PICK-UP LENS.

2-THE LASER POWER OUTPUT OF THE PICK-UP UNIT AND REPLACEMENT SERVICE PARTS ARE ALL FACTORY PRE-SET BEFORE SHIPMENT.
DO NOT ATTEMPT TO RE-ADJUST THE LASER PICK-UP UNIT DURING REPLACEMENT OR SERVICING.

3-UNDER NO CIRCUMSTANCES STARE INTO THE PICK-UP LENS AT ANY TIME.

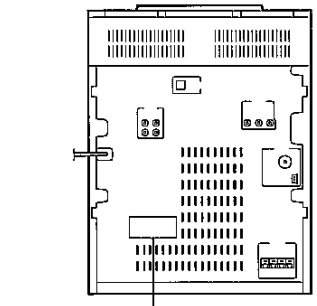
4-CAUTION-USE OF CONTROLS OR ADJUSTMENTS, OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

(For UK)



CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

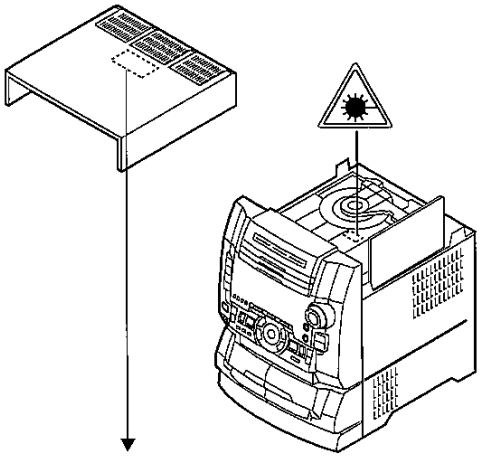
(Except for UK)



CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
LASER TŘÍDY 1
LASER TRIEDY 1

Laser Diode Properties
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW



CAUTION-INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT.

ADVERSEL-USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.

VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

VARNING-OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.

ADVERSEL-USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER.

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VARNING - OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERAS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

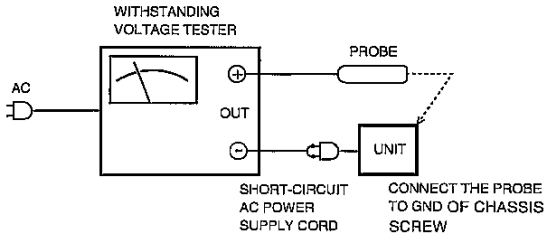
VARO ! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING! Osynlig laserstralning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

IMPORTANT SERVICE NOTES (FOR UK ONLY)

Before returning the unit to the customer after completion of a repair or adjustment it is necessary for the following withstand voltage test to be applied to ensure the unit is safe for the customer to use.

Setting of Withstanding Voltage Tester and set.

Set name	set value
Withstanding Voltage Tester	
Test voltage	4,240 VPEAK 3,000 VRMS
Set time	6 secs
Set current(Cutoff current)	4 mA
Unit	
Judgment	
OK: The "GOOD" lamp lights. NG: The "NG" lamp lights and the buzzor sounds.	



FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

CD-C3H

● General

Power source: AC 230 V, 50 Hz
Power consumption: 350 W
Dimensions: Width; 270 mm (10-5/8")
Height; 356 mm (14-3/16")
Depth; 355 mm (14")
Weight: 10.6 kg (23.4 lbs.)

● Amplifier section

Output power: PMPO; 600 W (total)
MPO; 300 W (150 W + 150 W)
(DIN 45 324)
RMS; 200 W (100 W + 100 W)
(DIN 45 324)
Input terminals: Video/Auxiliary (audio signal) × 2; 500 mV/47 kohms
Output terminals: Speakers; 6 ohms
Headphones; 16-50 ohms (recommended; 32 ohms)
Line output; 500 mV/47 kohms
CD digital output (optical)

● Compact disc player section

Type: 3-disc multi-play compact disc player
Signal readout: Non-contact, 3-beam semi-conductor laser pickup
Rotational speed: 200 - 500 rpm CLV, Approx.
Error correction: CIRC (Cross Interleave Reed-Solomon Code)
Quantization: 16-bit linear
Filter: 8-times oversampling digital filter
D/A converter: 1-bit D/A converter
Frequency response: 20 - 20,000 Hz
Dynamic range: 90 dB (1 kHz)
Wow and flutter: Unmeasurable
(less than 0.001% W. peak)

● Tuner section

Frequency range: FM; 87.5 - 108 MHz
MW; 522 - 1,620 kHz
LW; 153 - 281 kHz

● Cassette deck section

Type: Compact cassette tape
Frequency response: 50 - 14,000 Hz (Normal tape)
50 - 15,000 Hz (CrO_2 tape)
Motor: DC motor with electronic governor × 1
Signal/noise ratio: 55 dB (TAPE 1, playback, Dolby NR off)
50 dB (TAPE 2, recording/playback, Dolby NR off)
Dolby NR effect; 10 dB (at over 5 kHz)
Bias and erasure system: AC
Tape speed: 4.76 cm/sec. (1-7/8 ips.)
Wow and flutter: 0.2 % (DIN 45 511, playback)
Heads: TAPE-1: Playback × 1
TAPE-2: Record/playback × 1
Erase × 1

CP-C3H

● Speaker section

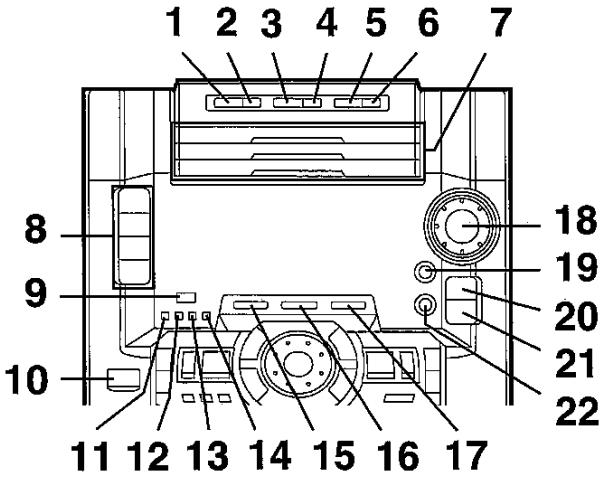
Type: 3-way type [16 cm (6-1/2") woofer, 5 cm (2") tweeter and super tweeter]
Rated input power: 100 W
Maximum input power: 200 W
Impedance: 6 ohms
Dimensions: Width; 240 mm (9-1/2")
Height; 350 mm (13-13/16")
Depth; 351.5 mm (13-7/8")
Weight: 5.7 kg (12.6 lbs.)/each

Specifications for this model are subject to change without prior notice.

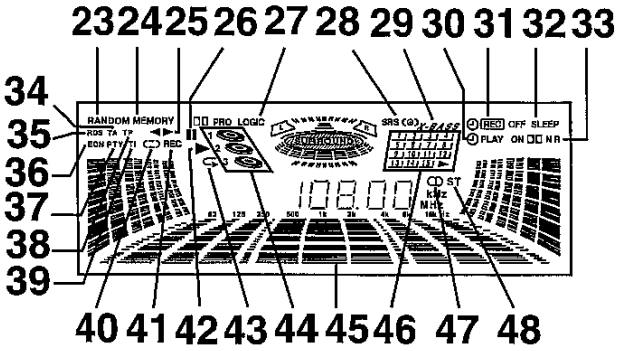
NAMES OF PARTS

CD-C3H

■ Front panel

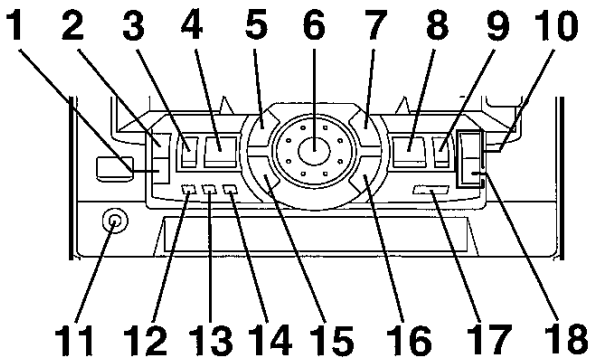


1. Disc 1 Select/Direct Play Button
2. Disc 1 Open/Close Button
3. Disc 2 Select/Direct Play Button
4. Disc 2 Open/Close Button
5. Disc 3 Select/Direct Play Button
6. Disc 3 Open/Close Button
7. Disc Trays
8. Function Selector Buttons
9. Remote Control Sensor
10. On/Stand-by Button
11. Programme Type/Traffic Information Search Button
12. EON Button
13. ASPM Button
14. Display Mode Selector Button
15. Dolby Pro Logic Button
16. Virtual Surround Button
17. QSOUND Button
18. Volume Control
19. Extra Bass Button
20. 3D Surround Mode Button
21. 3D Surround Pass Button
22. Equalizer Selector/Demo Mode Button

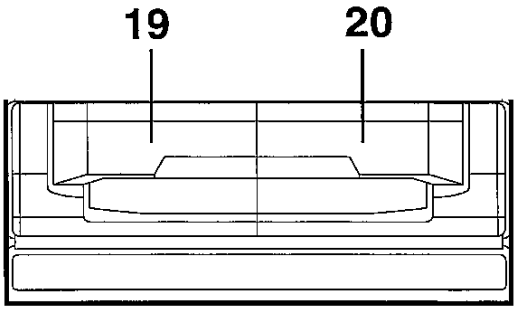


23. (CD) Random Play Indicator
24. (CD/TUNER) Memory Indicator
25. (TAPE 2) Direction Indicators
26. (CD) Pause Indicator
27. Dolby Pro Logic Indicator
28. SRS Indicator
29. Extra Bass Indicator
30. Timer Play Indicator
31. Timer Record Indicator
32. Sleep Indicator
33. (TAPE) Dolby NR Indicator
34. Traffic Announcement Indicator
35. RDS Indicator
36. EON Indicator
37. Programme Type Indicator
38. Traffic Programme Indicator
39. Traffic Information Indicator
40. (TAPE) Reverse Mode Indicator
41. (TAPE) Record Indicator
42. (CD) Play Indicator
43. (CD) Repeat Indicator
44. (CD) Disc Number Indicators
45. Spectrum Analyzer/Volume Level Indicator
46. (CD) Music Schedule Indicators
47. FM Stereo Indicator
48. FM Stereo Mode Indicator

1. (CD) Clear Button
2. Memory/Set Button
3. (TAPE) Reverse Mode Button
4. (TAPE) Reverse Play Button
5. (TUNER) Tuning Down Button
   (CD) Track Down/Review Button
   (TAPE) Fast Wind Button
6. Jog Dial
7. (TUNER) Tuning Up Button
   (CD) Track Up/Cue Button
   (TAPE) Fast Wind Button
8. (CD) Play/Repeat Button
   (TAPE) Forward Play Button
9. (TAPE) Record Pause Button
10. (TAPE) Editing Speed Selector Buttons
11. Headphone Socket
12. Clock Button
13. Timer Button
14. Sleep Button
15. (CD) Pause Button
16. (CD/TAPE) Stop Button
17. (TAPE) Dolby NR Button
18. Beat Cancel Button

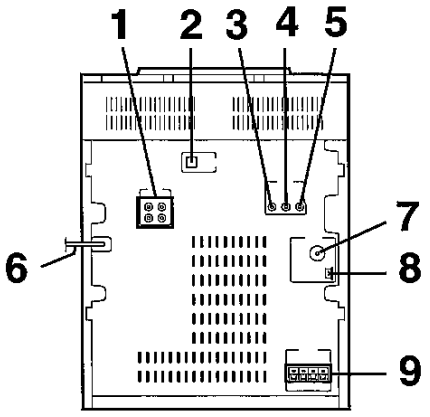


19. (TAPE 1) Cassette Compartment
20. (TAPE 2) Cassette Compartment



■ Rear panel

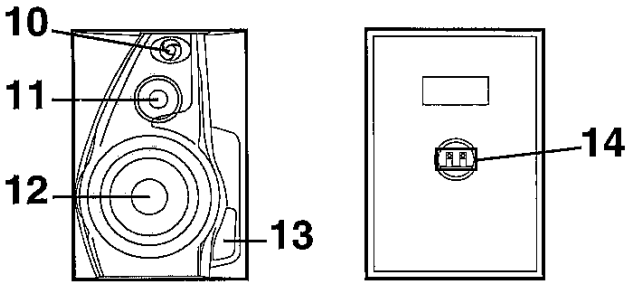
1. Video/Auxiliary (Audio Signal) Input Sockets
2. CD Digital Output Socket
3. Super Woofer Output Socket
4. Centre Output Socket
5. Surround Output Socket
6. AC Power Lead
7. FM 75 Ohms Aerial Socket
8. MW/LW Loop Aerial Input Socket
9. Speaker Terminals



CP-C3H

■ Speaker section

10. Super Tweeter
11. Tweeter
12. Woofer
13. Bass Reflex Duct
14. Speaker Terminals



CD-C3H

■ Remote control

1. Remote Control Transmitter LED
2. Virtual Surround Button
3. Dolby Pro Logic Button
4. Surround Level Buttons
5. Centre Level Buttons
6. Test Tone Button
7. QSOUND Button
8. Balance Control Buttons

● Tuner control section

9. Programme Type/Traffic Information Search Button
10. Preset Up/Down Buttons

● CD control section

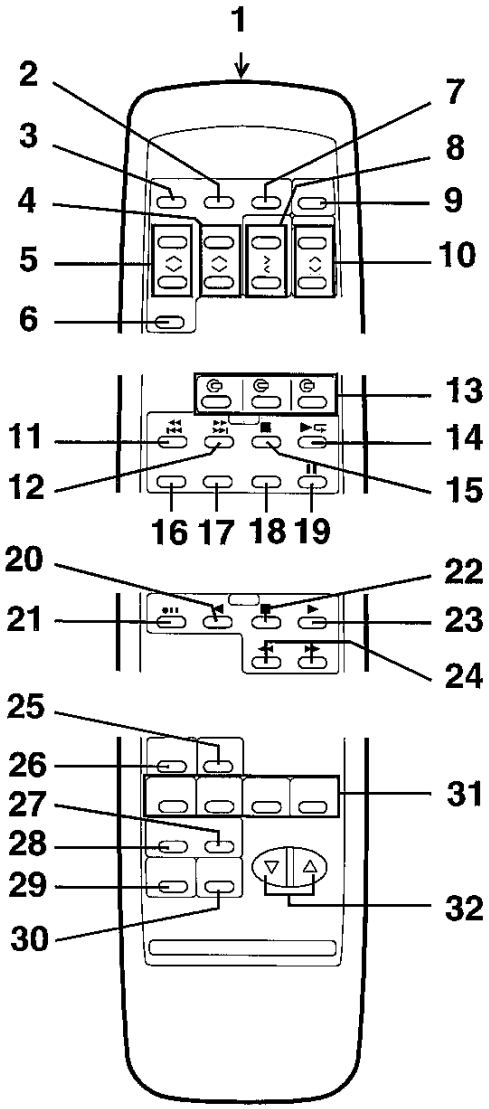
11. Track Down/Review Button
12. Track Up/Cue Button
13. CD Select/Direct Play Buttons
14. Play/Repeat Button
15. Stop Button
16. Memory Button
17. Clear Button
18. Random Button
19. Pause Button

● Tape control section

20. Reverse Play Button
21. Record Pause Button
22. Stop Button
23. Forward Play Button
24. Fast Wind Buttons

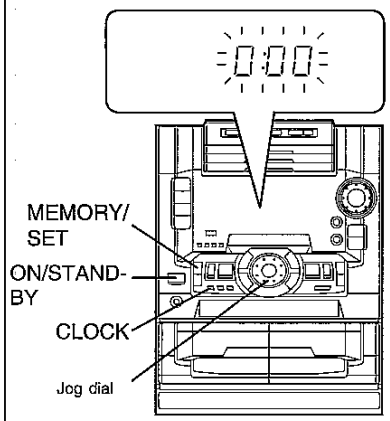
● Common section

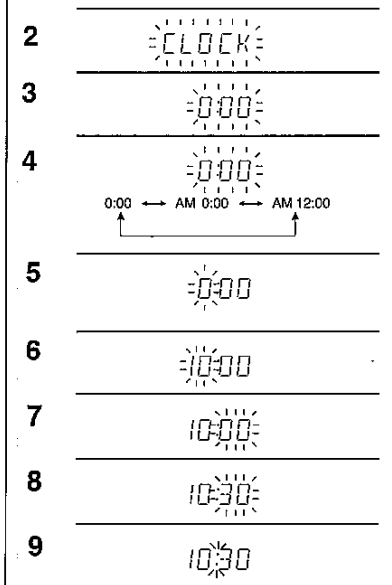
25. Extra Bass Button
26. Equalizer Mode Button
27. 3D Surround Mode Button
28. 3D Surround Pass Button
29. On/Stand-by Button
30. Dimmer Button
31. Function Selector Buttons
32. Volume Up/Down Buttons



SETTING THE CLOCK

In this example, the clock is set for the 24-hour (0:00) system.





1 Press the ON/STAND-BY button to enter the stand-by mode.

2 Press the CLOCK button.

3 Within 5 seconds, press the MEMORY/SET button.

4 Turn the jog dial to select the time display mode.
"0:00" → The 24-hour display will appear. (0:00 - 23:59)
"AM 12:00" → The 12-hour display will appear. (AM or PM 12:00 - 11:59)
"AM 0:00" → The 12-hour display will appear. (AM or PM 0:00 - 11:59)

- Note that this can only be set when the unit is first installed or it has been reset.

5 Press the MEMORY/SET button.

6 Adjust the hour by turning the jog dial.

- Turn the dial one click to advance the time by 1 hour. Keep turning the dial to advance continuously.
- When the 12-hour display is selected, "AM" will change automatically to "PM".

7 Press the MEMORY/SET button.

8 Adjust the minutes by turning the jog dial.

- Turn the dial one click to advance the time by 1 minute. Keep turning the dial to advance continuously.
- The hour setting will not advance even if minutes advance from "59" to "00".

9 Press the MEMORY/SET button.

- The clock starts operating from "0" seconds. (Seconds are not displayed.)

Note:

- In the event of a power failure or when the AC power lead is disconnected, the clock display will go out. When the AC power supply is restored, the clock display will flash on and off to indicate the time when the power failure occurred or when the AC power lead was disconnected. If this happens, follow the procedure below to change the clock time.

To change the clock time:

When the unit is in the stand-by mode:

① Press the MEMORY/SET button.
② Perform steps 6 - 9 above.

When the unit is on:

① Press the CLOCK button.
② Within 5 seconds, press the MEMORY/SET button.
③ Perform steps 6 - 9 above.

To see the time display:

Press the CLOCK button.

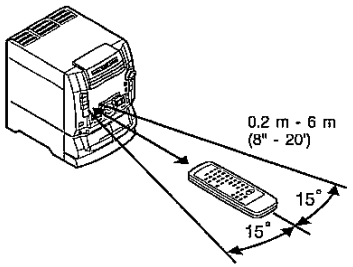
- The time display will appear for about 5 seconds.

To change the time display mode:

① Perform steps 1 - 2 in the section "RESETTING THE MICROCOMPUTER", on page 31 of Operation Manual.

② Perform steps 1 - 9 above.

PREPARATION FOR USE

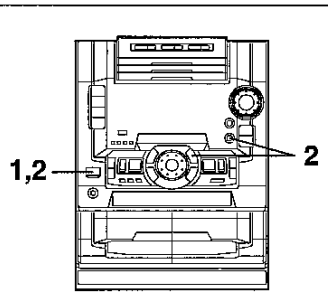


■ Remote control

Notes concerning use:

- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.

RESETTING THE MICROCOMPUTER



Reset the microcomputer under the following conditions:

- To erase all of the stored memory contents (clock and timer settings, and tuner and CD presets).
- If the display is not correct.
- If the operation is not correct.

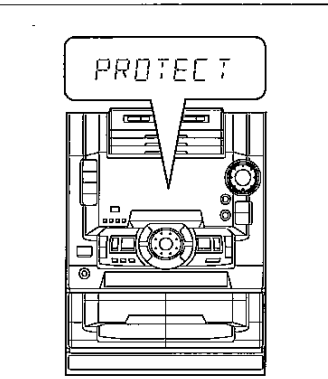
1 Press the ON/STAND-BY button to enter the stand-by mode.

2 Press and hold down the ▶▶ button, the EQ/DEMO button and the ON/STAND-BY button all at the same time. Hold them for at least 1 second.

Caution:

- The operation explained above will erase all data stored in memory including clock and timer settings, and tuner and CD presets.

WHEN "PROTECT" APPEARS



The unit will be overheated when "PROTECT" appears in the display.
Due to the problem in speaker circuit the unit will be switched to the stand-by mode automatically.
In this case take the following corrective actions.

1 Unplug the AC power plug from the AC socket.

2 Make sure that the unit vent is not blocked.

3 Make sure that the speaker wires have been correctly connected to the speaker terminals.

4 After checking items 2 and 3 above, wait for 2 or 3 hours before trying to use the unit.

5 Reconnect the AC power lead.

Note:

- If "PROTECT" appears again during use, please unplug the AC power plug, and contact the SHARP authorised service centre.

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take suff cient care on static electricity of integrated circuits and other circuits when servicing.

CD-C3H

STEP	REMOVAL	PROCEDURE	FIGURE
1	Top Cabinet	1. Screw ..... (A1) x4	8-1
2	Side Panel (Left/Right)	1. Screw ..... (B1) x6 2. Screw ..... (B2) x4	8-1
3	CD Changer Block	1. Flat cable ..... (C1) x1 2. Screw ..... (C2) x2 3. Screw ..... (C3) x2	8-2
4	Pro Logic PWB	1. Screw ..... (D1) x2	9-1
5	Tuner PWB	1. Screw ..... (E1) x8 2. Screw ..... (E2) x1 3. Screw ..... (E3) x4	9-1
6	Main PWB	1. Socket ..... (F1) x3 2. Flat Cable ..... (F2) x1 3. Flat Wire ..... (F3) x2 4. Screw ..... (F4) x2 5. Screw ..... (F5) x2	9-1
7	Front Panel	1. Flat Wire ..... (G1) x2 2. Screw ..... (G2) x1 3. Screw ..... (G3) x2	9-1
8	Display PWB	1. Knob ..... (H1) x2 2. Nut ..... (H2) x1 3. Screw ..... (H3) x12	9-2
9	CD Switch PWB	1. Screw ..... (J1) x3	9-2
10	Headphones PWB	1. Screw ..... (K1) x1	9-2
12	Tape Mechanism	1. Open the cassette holder 2. Screw ..... (L1) x6	9-2
13	Power Amp. PWB	1. Socket ..... (M1) x1 2. Screw ..... (M2) x4 3. Screw ..... (M3) x2	9-3
14	Power Supply PWB	1. Screw ..... (N1) x1 2. Screw ..... (N2) x4	9-3
15	CD Digital PWB	1. Screw ..... (P1) x1	9-4
16	CD Changer Holder	1. Screw ..... (Q1) x3	9-4
17	CD Servo PWB (Note)	1. Socket ..... (R1) x6 2. Screw ..... (R2) x3	9-5
18	Tray Switch PWB	1. Screw ..... (S1) x1	9-5

Note : After removing the connector for the optical pickup fromthe connector wrap the conductive aluminium foil around the front end of connector so as to protect the optical pickup from electrostatic damage.

CD-C3H

STEP	REMOVAL	PROCEDURE	FIGURE
19	CD Mechanism	1. Screw ..... (T1) x2 2. Top Bord ..... (T2) x1 3. Disc Holder ..... (T3) x1 4. Disc Tray ..... (T4) x3 5. Screw ..... (T5) x1 6. Mechanism Holder Guide ..... (T6) x1 7. Screw ..... (T7) x2 8. Mechanism Holder Bracket ..... (T8) x1 9. Mechanism Holder (T9) x1 10. Screw ..... (T10) x4	10-1

CP-C3H

STEP	REMOVAL	PROCEDURE	FIGURE
1	Speaker	1. Screw ..... (A1) x2 2. Screw ..... (A2) x2 3. Screw ..... (A3) x4	10-2 10-3

CD-C3H

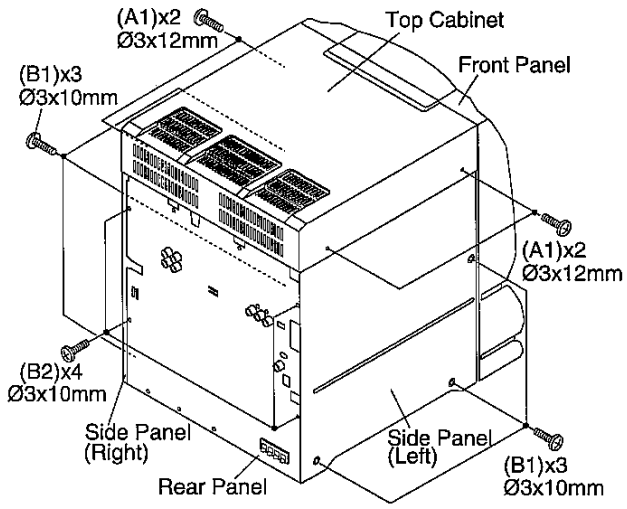


Figure 8-1

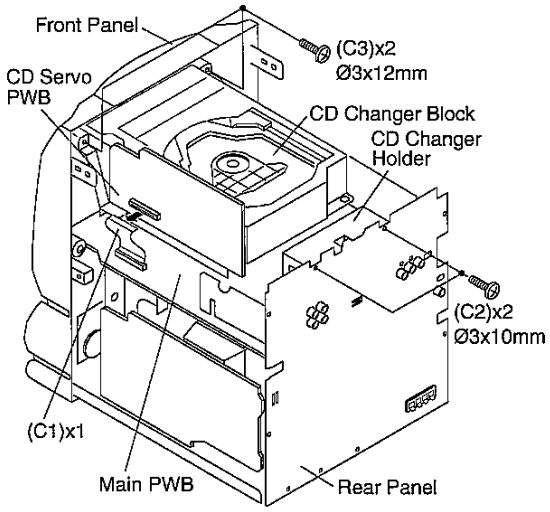


Figure 8-2

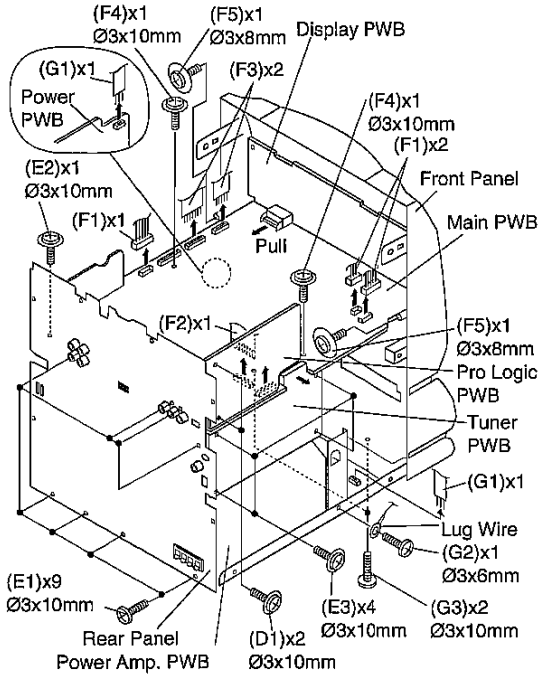


Figure 9-1

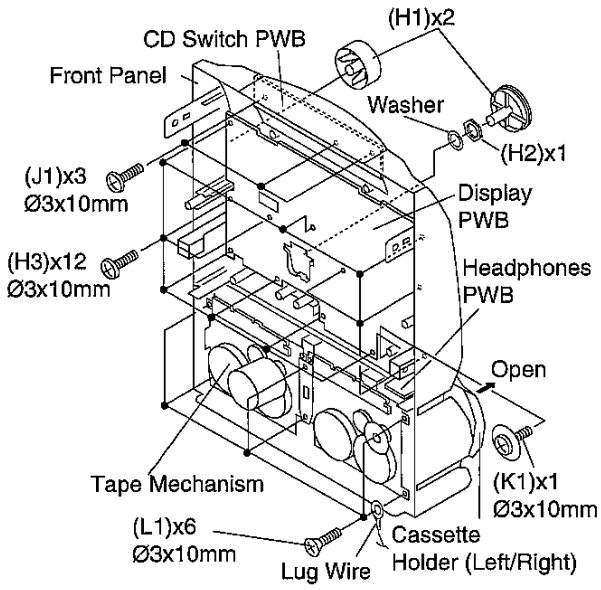


Figure 9-2

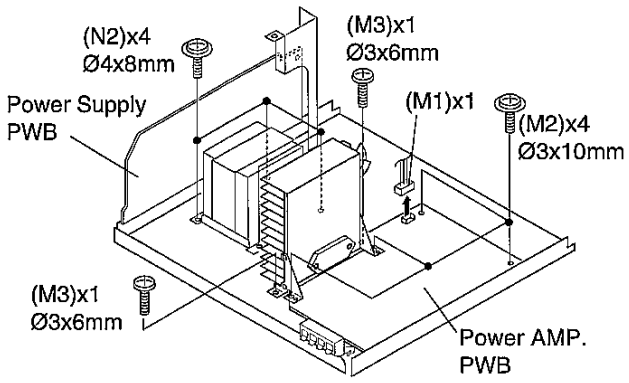


Figure 9-3

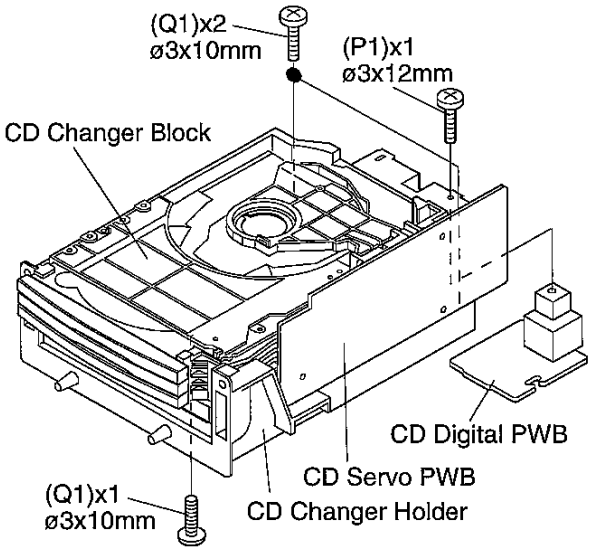


Figure 9-4

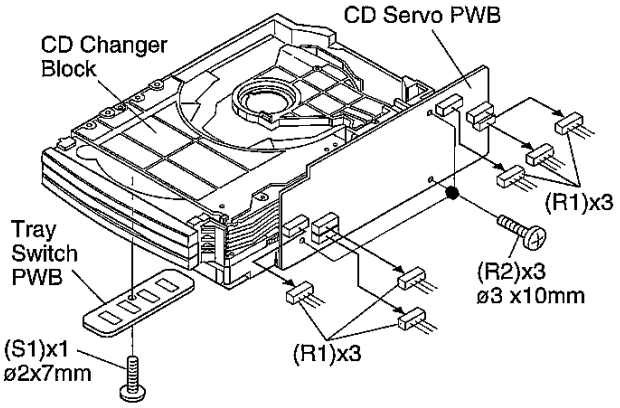
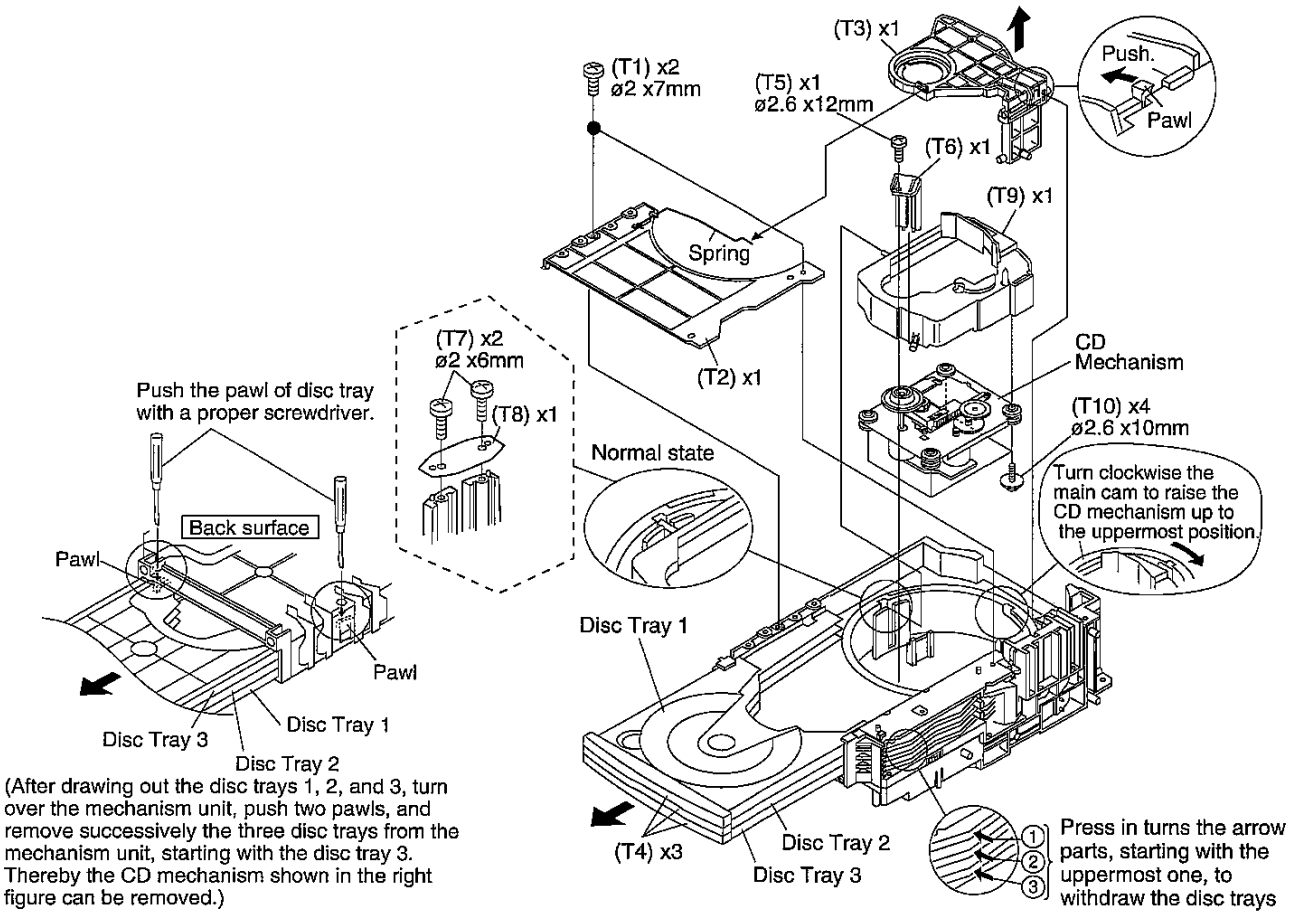


Figure 9-5



(After drawing out the disc trays 1, 2, and 3, turn over the mechanism unit, push two pawls, and remove successively the three disc trays from the mechanism unit, starting with the disc tray 3. Thereby the CD mechanism shown in the right figure can be removed.)

Figure 10-1

CP-C3H

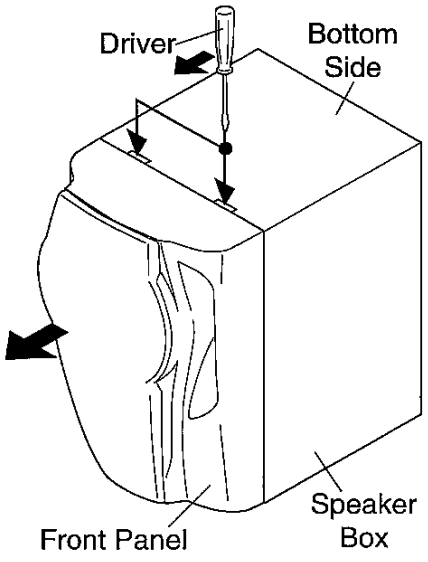


Figure 10-2

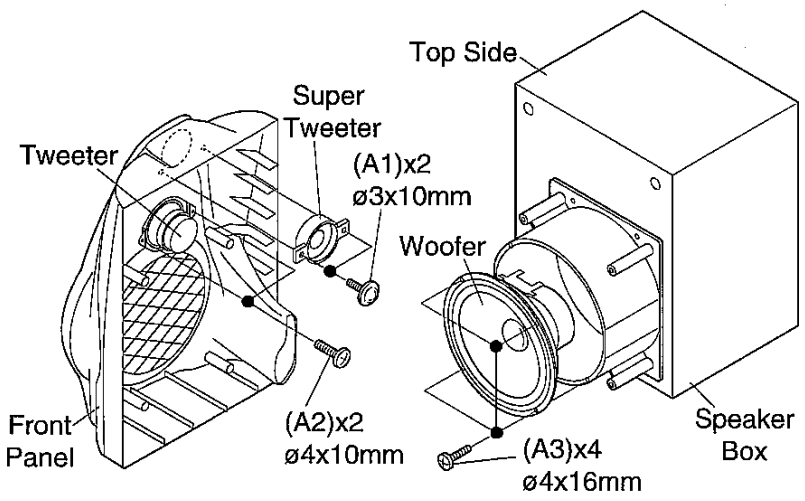


Figure 10-3

REMOVING AND REINSTALLING THE MAIN PARTS

CD MECHANISM SECTION

For the procedure to remove the CD mechanism from the main unit, refer to Disassembling Procedure, Steps 1~10, and 19. (page 8).

How to Remove the optical pickup (See Fig. 11-1.)

1. Remove the screws (A1)x 2 pcs., to remove shaft (A2)x 1 pc.
2. Remove stop washer (A3)x 1 pc., to remove gear (A4)x 1 pc.
3. Remove the optical pickup.

Note:
After disconnecting the optical pickup connector wrap the front end of connector in conductive aluminum foil so as to prevent damage to the optical pickup by static electricity.

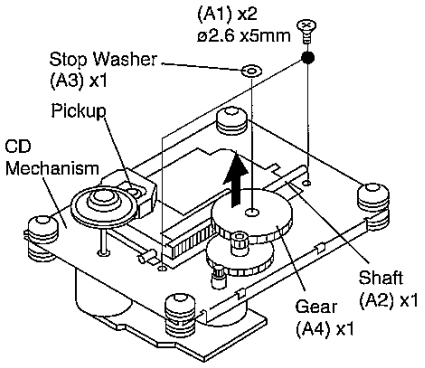


Figure 11-1

How to Remove the tray motor/main cam motor (See Fig. 11-2.)

1. Remove the CD changer section by the method described in page 8, and disassemble as shown in the figure.
2. Remove the belts (B1)x 2 pcs., from the motor side.
3. Remove the screws (B2)x 4 pcs.
4. Remove the tray motor and main cam motor.

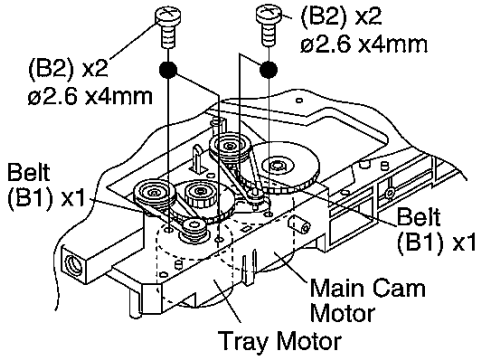
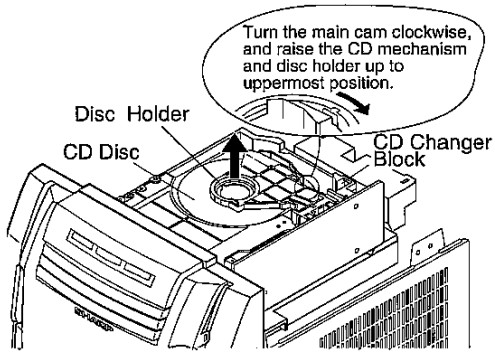


Figure 11-2

How to remove the CD disc (When CD is in playback state) (See Fig. 11-3.)

1. Remove the Top cabinet .
2. Disassemble as shown in the figure so that the CD disc of CD changer becomes visible.
3. Remove the CD disc as shown in the figure.

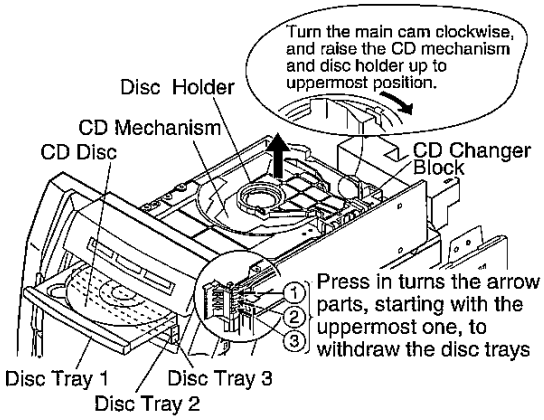

Turn the main cam clockwise, and raise the CD mechanism and disc holder up to uppermost position.
Disc Holder
CD Disc
CD Changer
Block

(When CD is in playback state.)

Figure 11-3

How to remove the CD disc (When CD exists in the tray) (See Fig. 11-4.)

1. Remove the Top cabinet.
2. Disassemble as shown in the figure so that the CD disc of CD changer can be taken out.
3. Remove the CD disc from the tray as shown in the figure.


Turn the main cam clockwise, and raise the CD mechanism and disc holder up to uppermost position.
Disc Holder
CD Mechanism
CD Disc
CD Changer
Block
Press in turns the arrow parts, starting with the uppermost one, to withdraw the disc trays
Disc Tray 1
Disc Tray 3
Disc Tray 2

(When CD exists in the tray)

Figure 11-4

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2412	Tape 1: Over 80 g Tape 2: Over 80 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 60 g. cm	30 to 60 g.cm
Fast forward: TW-2231	60 to 120 g.cm	60 to 120 g.cm
Rewind: TW-2231	60 to 120 g.cm	60 to 120 g.cm

• Tape Speed

	Test Tape	Adjusting Point	Specified Value	Instrument Connection
Normal speed	MTT-111	VRM01	3,000 ± 30 Hz	Speaker terminal

TAPE SECTION

Position of each switch or control	
Volume	MAX
3D Surround Mode Button	PASS
Pre-programmed Equalizer	FLAT
Extra Bass	OFF
Function	TAPE
Dolby NR switch	OFF
X-Bass	OFF

• Bias Frequency

Adjusting Point	Specified Value	Instrument Connection
—	98 ± 10 kHz	CNP102 ①

• Bias Current

Adjusting Point	Specified Value	Instrument Connection
L: VR101 R: VR102	Normal: 38 ± 10 mV CrO2: 55 ± 15 mV	L: TP490 ④ R: TP490 ②

• Tape 1 Playback Amplifier Sensitivity

Test Tape	Adjusting Point	Specified Value	Instrument Connection
MTT-150	L: VRD01 R: VRD02	Normal: 300 mV	L: TP451 ③ R: TP451 ①

• Tape 2 Playback Amplifier Sensitivity

Test Tape	Adjusting Point	Specified Value	Instrument Connection
MTT-150	L: VRD03 R: VRD04	Normal: 300 mV	L: TP451 ③ R: TP451 ①

• Record/Playback Sensitivity

Test Tape	Adjusting Point	Specified Value	Instrument Connection
UR-127	Record level control	215 mV	Input: VIDEO Output: L: TP451 ③ R: TP451 ①
	L: VR151 R: VR152	215 mV	

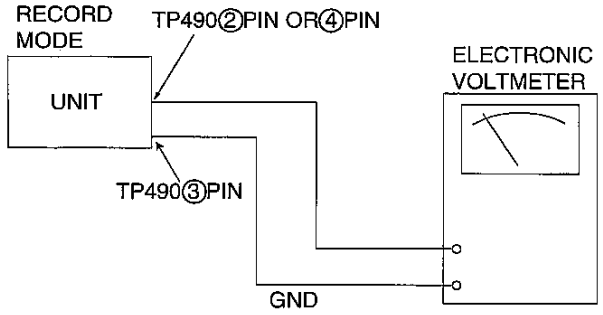


Figure 12-1 BIAS CURRENT

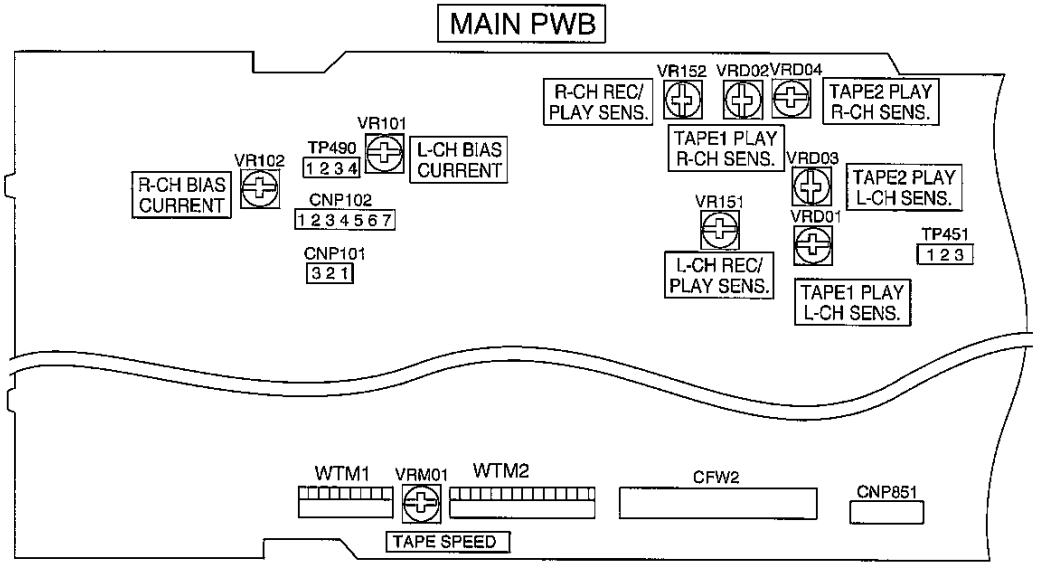


Figure 12-2 ADJUSTMENT POINTS

TUNER SECTION

fL: Low-range frequency
fH: High-renge frequency

• **AM IF/RF**

Signal generator: 400 Hz, 30%, AM modulated

Test Stage	Frequency	Frequency Display	Setting/ Adjusting Parts	Instrument Connection
IF	450 kHz	1,620 kHz	T351	*1
MW Band Coverage	—	522 kHz	(fL): T306 1.1 ± 0.1 V	*2
MW Tracking	990 kHz	990 kHz	(fL): T302	*1
LW Band Coverage	—	153 kHz	(fL): T305 1.5 ± 0.1 V	*2
LW Tracking	225 kHz	225 kHz	(fL): T301	*1

*1. Input: Antenna, Output: TP302
*2. Input: Antenna, Output: TP301

• **FM**

Notes:

1: Description of the "FM IF Adjustment" is not carried on this Manual. It is because the IF coil in the FM front end section has been best adjusted in the factory so that its further adjustment is not needed at the field. When replacing the FM front end assembly, no adjustment is needed either.
2: The parts in the FM front end section are prepared in a complete unit, so you can't obtain each part individually

• **FM Mute Level**

Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Frequency Display	Adjusting Parts	Instrument Connection
98.00 MHz (25 dBμV)	98.00 MHz	VR351*	Input: Antenna Output: Speaker Terminal

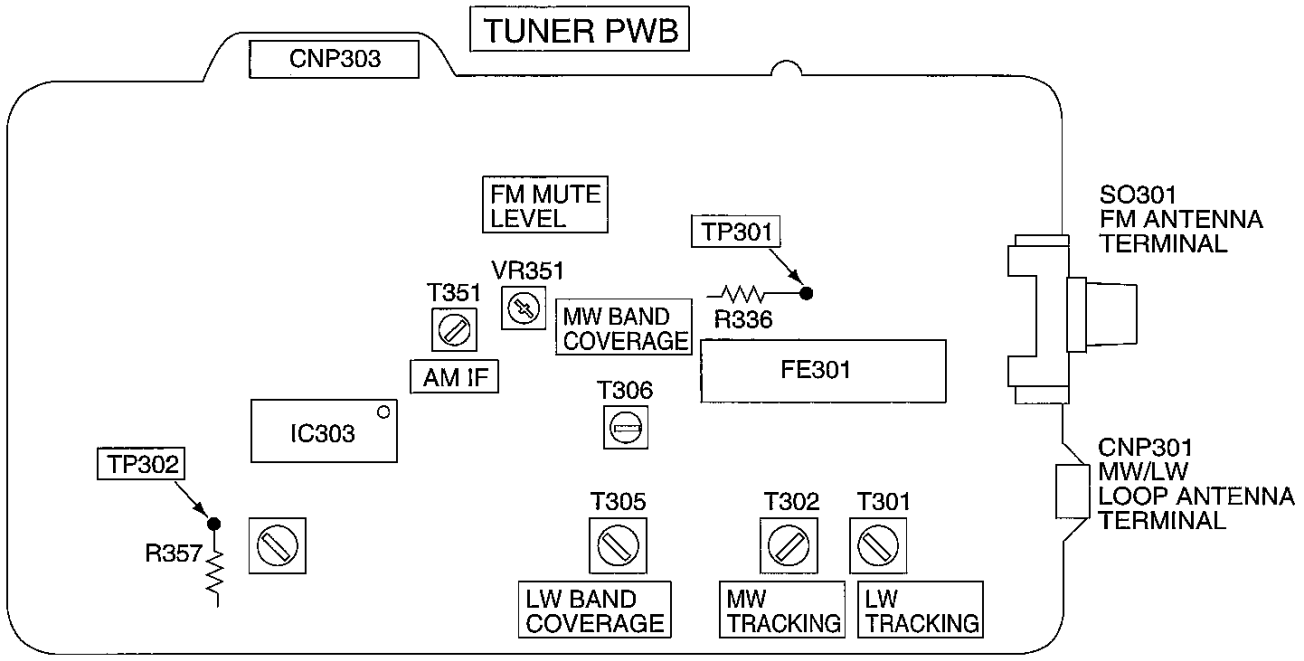


Figure 13 ADJUSTMENT POINTS

TEST MODE

• Setting the test mode

Any one of test mode can be set by pressing several keys as follows.
Hold down the EQ and CD buttons, and press the POWER switch. TEST: CD operation test

• TEST mode

Function — CD test mode

Setting of TEST mode
↓
Indication of CD TEST mode (Fig. 14-1)
↓
OPEN/CLOSE operation is manual operation.
↓
The pickup can be moved by using the (▶▶) or (◀◀) key.

IL is not performed.

<MEMORY> key input → When the tracking servo is activated, playback will begin at the current position. → Press the STOP button. → The pickup will return to the STOP position. → <MEMORY> key input → When the tracking servo is activated, playback will begin at the current position. → <STOP> key input → The pickup normally returns to the STOP position.

<PLAY> key input → TOC. IL is performed, and the ordinary PLAY is performed. → Press <STOP> key. → Stop

If the following key is pressed during PLAY, it is possible to specify directly any Track No.
<Disc Number 1> key: Track 4
<Disc Number 2> key: Track 9
<Disc Number 3> key: Track 15

Note:

Only in STOP state it is possible to slide the pickup with the (▶▶) or (◀◀) key.
VOL. --- Last memory
BAL. --- CENTER
R.GEQ. --- FLAT
X-BAS --- OFF
Canceling method - POWER OFF

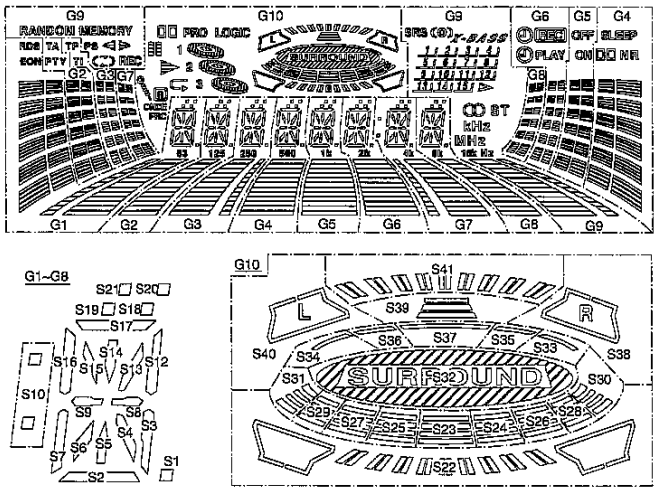


Figure 14-1

CD SECTION

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is not necessary to readjust it.
Since this CD unit does not need adjustment, the combination of PWB and laser pickup unit is not restricted.

• Automatic adjustment item

1. Focus offset (Fig. 14-2)
2. Tracking offset (Fig. 14-3)
3. E/F balance (tracking error balance) (Fig. 14-4)
4. RF level AGC function (HF level: constant)
5. RF level automatic follow-up of the tracking gain

This automatic adjustment is performed each time a disc is changed. Therefore, each disc is played back using the optimal settings.

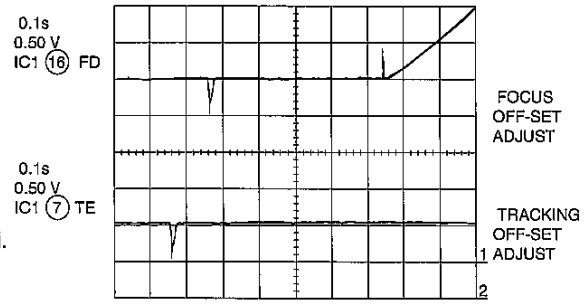


Figure 14-2

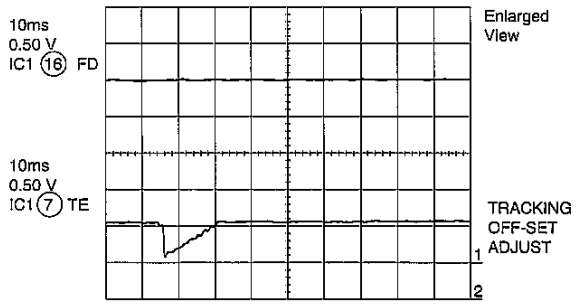


Figure 14-3

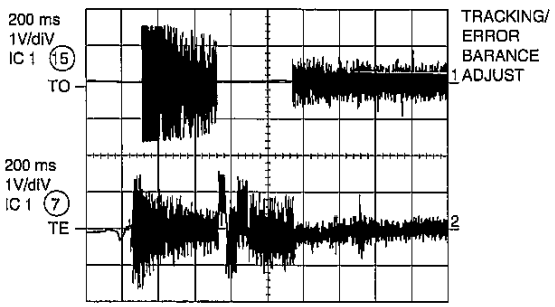


Figure 14-4

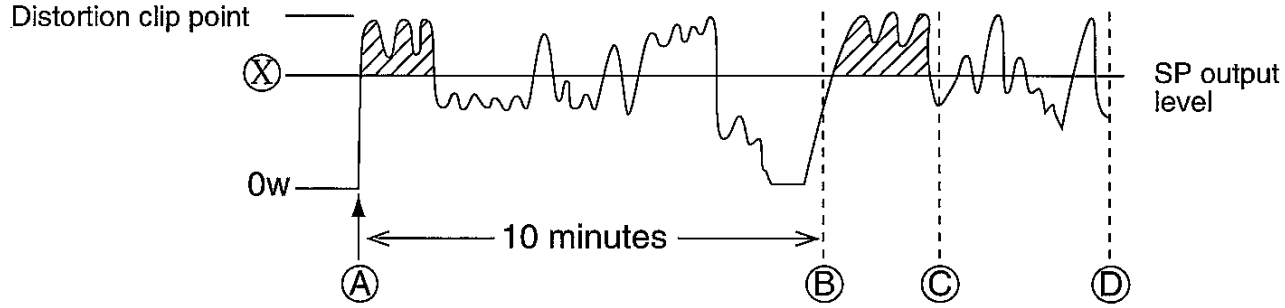
EXPLANATION OF AUTOMATIC SOUND VALUE CORRECTION CONTROL

1. Outline

The recent trend is toward rise of CD record level in the world, for example rock, dancing music, etc. In case of continuous high level playback G-EQ (graphic equalizer) and VOL (Volume) are controlled (lowered) automatically after a lapse of specific time (10 minutes) so as to get the easy-to-listen sound level.

2. Explanation of operation

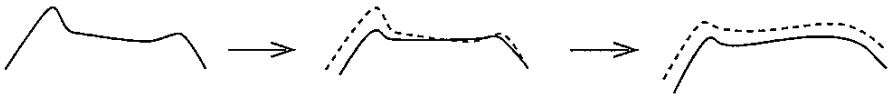
The CD playback operation is explained below.



Ⓧ : Threshold value of control circuit operation
Ⓐ : Hight energy (hatched area) exceeding Ⓧ is detecated, and the control mode is set.
Ⓑ : After a lapse of 10 minutes the control is started.

Ⓑ ~ Ⓒ :

Data is fetched every 4 seconds to control.



Initial frequency characteristics.

Hand L frequency characteristics are lowered.

VOL (Volume) is lowered.

At first, the H and L frequency characteristics are lowered as shown above so thet the distortion and disturbance are reduced. However, if hight energy exceeding Ⓧ is detected, VOL is lowered to get sound easy to listen.

Ⓒ ~ Ⓓ :

Stable control
Continued control

The output data is fetched every 4 seconds to control. When quiet music is played back, the control is performed so as to restore the initial frequency characteristics and initial VOL values.

Control mode cancel conditions

- When output exceeding Ⓧ is not given continuously for 10 minutes. — When quiet music is played back. When VOL is lowered.
- When the power is turned off or on.

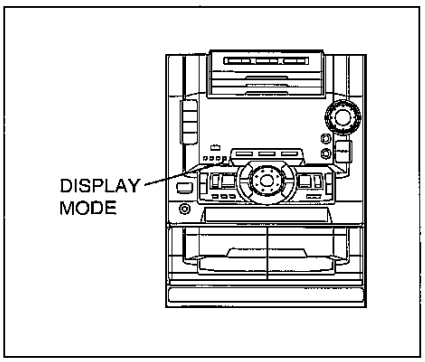
RDS

RDS (Radio Data System) OPERATION

■ Receiving FM Stations with RDS (Radio Data System)

RDS is a broadcasting service which a growing number of FM stations are now providing. It allows these FM stations to send additional signals along with their regular programme signals. For example, the stations send their station names, and information about what type of programme they broadcast, such as sports or music, etc.
When tuned to an FM station which provide the RDS service, the RDS will appear, the station frequency (and then the station name if sent) is displayed.
The TP (Traffic Programme) will appear on the display when the received broadcast carries traffic announcements, and the TA (Traffic Announcement) will appear whilst a traffic announcement is being received.
EON will appear whilst the EON (Enhanced Other Networks information) data is being broadcast.

Note:
When the TP and TA appear at the same time, an announcement is being made.
When only the TA appears, an announcement is not being made.



■ Information Provided by RDS

With the CD-C3H, you can display two types of RDS service. To show them on the display, press the DISPLAY MODE button. Each time you press the DISPLAY MODE button, the display will change to show the following information.

PS (Programme Service):	Station names commonly known will be displayed. "NO PS" appears if no signal is being sent.
PTY (Programme Type):	Programme type will be displayed. "NO PTY" appears if no signal is being sent.
Station Frequency:	Station frequencies.

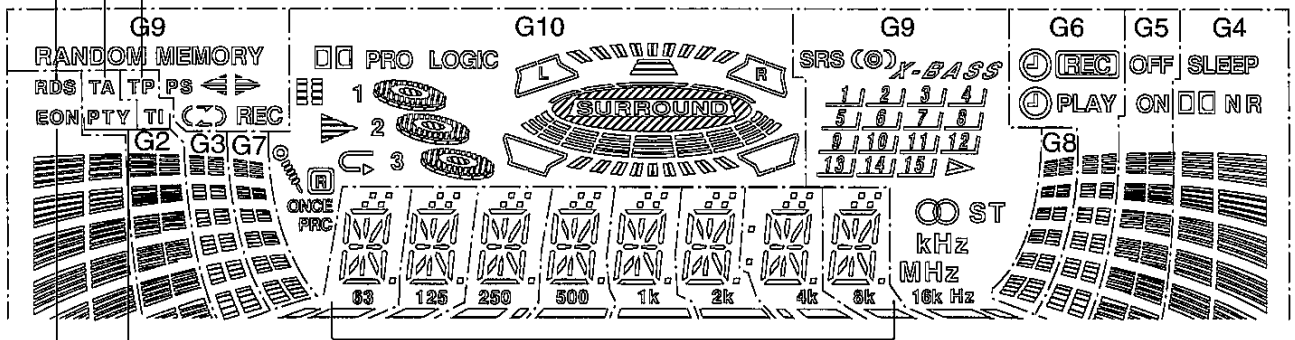
Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement)
With the CD-C3H, you can search for and receive the following PTY, TP and TA signals.

NEWS:	News
AFFAIRS:	Topical programme expanding on the current news or affairs
INFO:	Programmes on medical service, weather forecast, etc.
SPORT:	Sports events
EDUCATE:	Educational programmes
DRAMA:	Radio plays
CULTURE:	Programmes on national or regional culture.
SCIENCE:	Programmes on national sciences and technology
VARIED:	Other programmes like comedies or ceremonies
POP M:	Pop music
ROCK M:	Rock music
M.O.R. M:	Middle-of-the-road music (usually called "easy listening")
LIGHT M:	Light music
CLASSICS:	Classics
OTHER M:	Other music
ALARM:	Emergency broadcasts
NONE:	No programme type (receive only)
TP:	Broadcasts which carry traffic announcements
TA:	Traffic announcements are being broadcast at present.

Note:
- When the unit is in the EON stand-by mode and a programme is selected, the unit will display "TI" instead of "TA".

DISPLAY

Lights up when RDS station is recsived.
Lights up when TA station is received.
Lights up whenTP station is received.

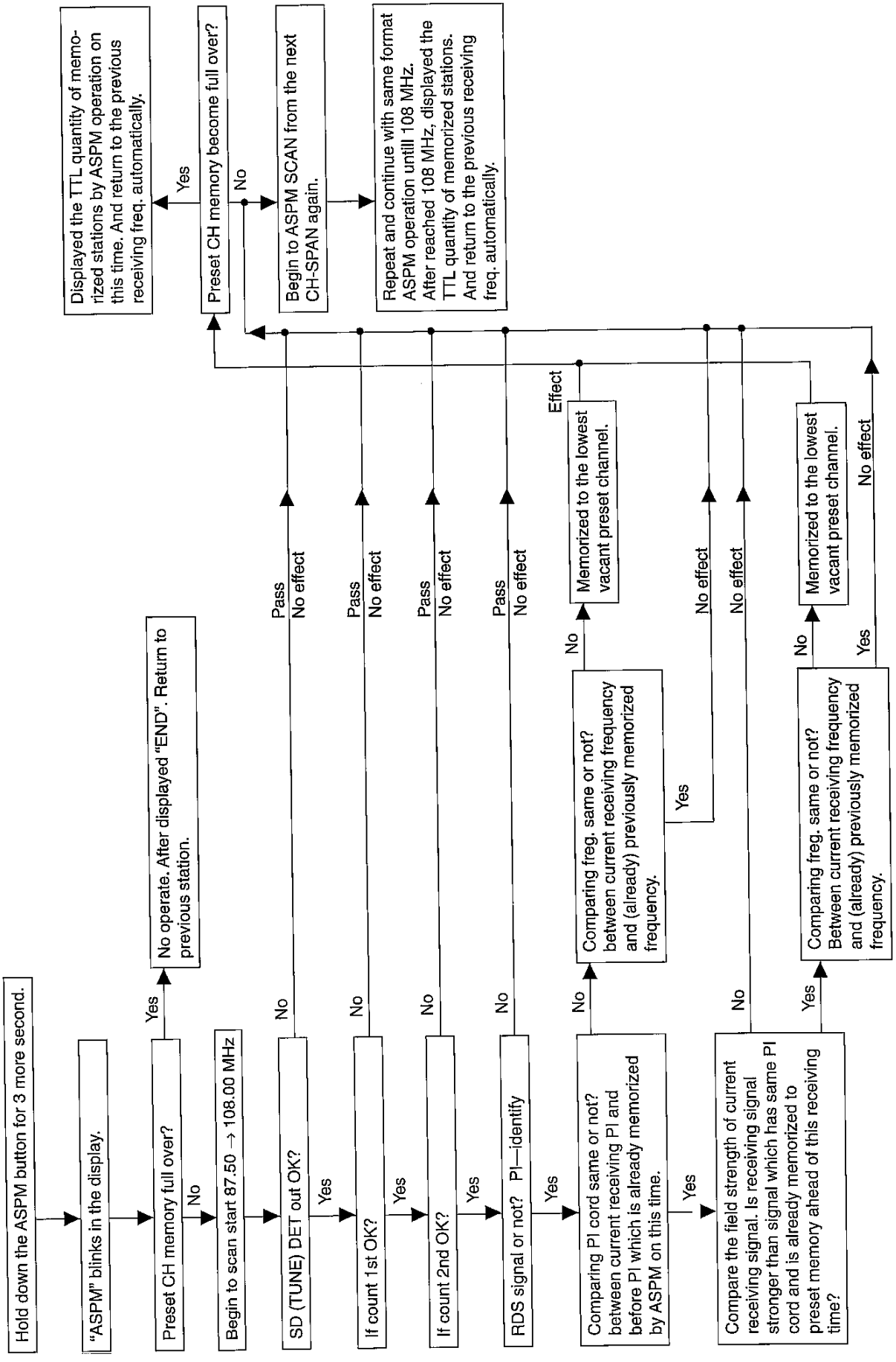


8 character can display E1 table of EBU.

Lights up when stand-bymode and blinks during staying other network station.

Lights up when RDS with EON station is received.

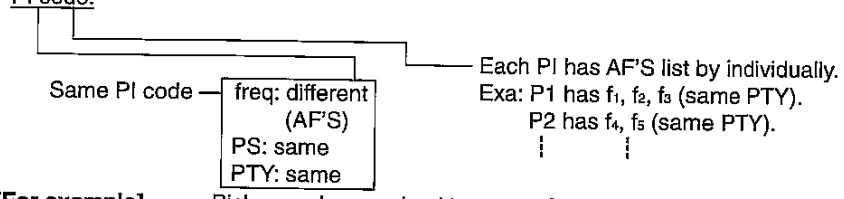
ASPM, summary operation


Hold down the ASPM button for 3 more second.
"ASPM" blinks in the display.
Preset CH memory full over?
Yes
No operate. After displayed "END". Return to previous station.
No
Begin to scan start 87.50 → 108.00 MHz
SD (TUNE) DET out OK?
No
Pass
No effect
Yes
If count 1st OK?
No
Pass
No effect
Yes
If count 2nd OK?
No
Pass
No effect
Yes
RDS signal or not? PI—identify
No
Pass
No effect
Yes
Comparing PI cord same or not? between current receiving PI and before PI which is already memorized by ASPM on this time.
No
Comparing freq. same or not? between current receiving frequency and (already) previously memorized frequency.
No
Memorized to the lowest vacant preset channel.
Effect
Yes
No effect
Yes
Compare the field strength of current receiving signal. Is receiving signal stronger than signal which has same PI cord and is already memorized to preset memory ahead of this receiving time?
No
Comparing freq. same or not? Between current receiving frequency and (already) previously memorized frequency.
No
Memorized to the lowest vacant preset channel.
Yes
No effect
Yes
Preset CH memory become full over?
Yes
Displayed the TTL quantity of memorized stations by ASPM operation on this time. And return to the previous receiving freq. automatically.
No
Begin to ASPM SCAN from the next CH-SPAN again.
Repeat and continue with same format ASPM operation untill 108 MHz. After reached 108 MHz, displayed the TTL quantity of memorized stations. And return to the previous receiving freq. automatically.

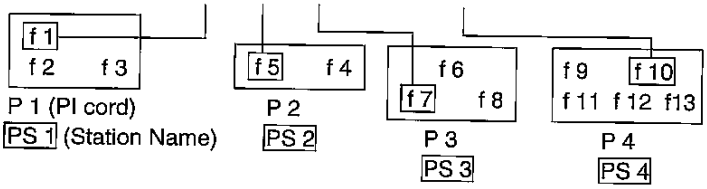
- ASPM SCAN: 87.50MHz → 108.00 MHz.
- Only RDS signal is memorized by ASPM because RDS signal has PI code and is suitable and convenient for ASPM operation.

ASPM

Comparing field strength, only one strongest RDS station is memorized of all stations (repeater relay stations) that have same PI code.



[For example] Pickup and memorized to preset CH.



Select signals (f1, f5, f7, f10) are memorized in the preset memory by ASPM.

- If tentative - ASPM operation is repeated intententionally, never memorized (over write) at the same frequecy. 1st time ASPM → strongest stations of each pi are memorized.

ASPM is not only very usefull for PTY search, but also EON operation.
2nd time ASPM → 2nd strong stations of each pi are memorized and so on.
PTY search function is equal to FM band search function as a result.

1. Introduction of RDS for CD-C3H

CD-C3H RDS function is equal to adding EON feature to the current CD-C75H RDS.
EON feature is EON—PTY and EON—TI.
Although PTY and TI indicators are separated, PTY contains TI in the PTY items (software) like current PTY search items.

NEWS, AFFAIRS, INFO, ALARM, TI (TTL 17 kinds)

EON—PTY
Can select and stand-by

EON—TI
Can select and stand-by

EON—PTY and EON—TI are basically stand-by → receive the desired program of ON station.

2. The difference point from current CD-C75H RDS. (CD-C75H — CD-C3H)

1. PTY item: added TA.TTL 18 kind.
2. Each "TP", "TA" ind. light up or go out individually.
   "TA" ind. doesn't light up on current model, CD-C75H due to none EON—TI.
3. Added 3 indicators(in FL) due to adding EON feature.
   EON: Lights up only during receiving EON data (14A).
   TI: During EON-TI stand-by → Light up
   During receiving ON station. → blink.
   PTY: During EON-PTY stanb-by → Light up
   During receiving ON station. → blink.
4. No adjust type (None adjusting circuit.)
5. Added EON button.
6. Need to change RDS logo due to add EON feature.
7. Added EON—TI, EON—PTY function.

3. Summary of CD-C3H RDS—EON operation

EON—PTY: Select and set the desired "PTY" → stand-by → switch to ON(other network) Station at the start of desired PTY automatically → stay and listen to PTY of ON station → switch back to TN(This net) station automatically at the end of PTY(ON) i.e. after changing to another PTY(except AF M FAIRS) or cancelling to receive PTY of ON station midway.

EON—TI: Select and set the "TI" → stand-by → switch to ON station at the start of traffic announcement automati cally → stay and listen to TA of ON station → switch back to TN station autmatically at the end of TA(ON). ie after TA(ON) is over or cancelled to receive TA of ON station midway.
When switching TN → ON station.

In case of exist 2 more stations having the desired(specified) "PTY" or "TI", the receiver will select and switch to ON station comparing field strength at the same time. But when the frequency of ON station exists in the preset-memory, then reciver switches straight to that ON station(CH), without comparing field strength so can make a quick switching from TN—ON sta tion. Preset memory takes priority of switching TN—ON station.
therefore ASPM is usefull not only for PTY search but also for rapid EON switching. Anyway CD-C3H EON is basically stand-by and receiving method, along with the Guidelines for EON implementation.

EON summary notice for reference

1. EON-TI/PTY — EON stand-by can be set, only when EON ind. lights up.
While EON ind. goes out (NO EON STATION), EON stand-by can't be set.
If the EON button is pressed, then "NO EON" is indication the display.
2. EON-TI/PTY — Even if switch back ON→TN station continue to keep EON stand-by.
3. EON-TI — Don't switch TN→ON during TN broadcast TA. (same item)
4. EON-TI/PTY — EON can be cancelled during receiving ON station by pressing EON button if necessary and switch back ON→TN.
5. EON-TI/PTY — EON stand-by is perfectly cancelled (cleared) by pressing EON button 2 times during stand-by or powerOFF or Tun Up/Down or change band or recall pre-set CH.
6. EON-TI/PTY — After setting EON stand-by, stand-by items can be confirmed by pressing EON button one time.
7. EON-TI/PTY — EON button function:
   - EON setting
   - Confirm stand-by items
   - Cancel (ON→TN)
   - EON clear cancel (2 times)
8. EON-TI/PTY — After setting EON-TI and EON-PTY stand-by, if when EON data is not transmitted, EON ind goes out and EON stand-by is automatically cancelled display "NO EON".
9. EON-TI — EON-TI stand-by can't be set. When TP=0,TA=0(TN) even if EON ind. lights up and the EON button is pressed then "NO TI" is indication the display.
10. EON-PTY — Don't switch TN→ON during TN broadcast same specified PTY. (same item of PTY)
11. EON-TI/PTY — Switch TN→ON→ TN station one cycle.
Never switch TN→ON1→ON2→ Other net to other net station.
12. EON-TI/PTY — After switch TN→ON station. When ON station is NO RDS, NO signal, TA=OFF or different PTY items. The receiver switch back ON→TN displaying "NO READY".
13. — During receive ON station. when ON station become to be NO RDS, NO signal, TA=ON to OFF or different PTY item, The receiver switch back ON→TN.
14. EON-TI/PTY — Switch TN→ON in case of 2 more stations exist, comparing field strength and switch to the strongest station, if these signals are same strength, switch to the first previous station.
If same frequency as AF'Sexists in the preset memory, then switch TN→ON (preset memory station) straight.
In case of exist 2 more preset memories of AF'S,then switch to the preset CH which taken in EON DATA first, also in this case no concern to field strength.
15. — Even if switch TN→ON preset memory straight, that ON station is very weak signal, then search another AF'S (ON) station comparing field strength and switch to the strongest station as a result. Of all atations of AF'S are very weak or no good condition, then, switch back ON→TN automatically display "NO READY".
16. EON-TI/PTY — No linkage volume, power ON/OFF, and switch function.

Traffic Programme code (TP)	Traffic Announcement code (TA)	Applications
OFF	OFF	This programme does not carry traffic announcements nor does it refer, via EON, to a programme that does.
OFF	ON	This programmecarries EON information about another programme which gives traffic information.
ON	OFF	This programme carries traffic announcements but none are being broadcast at present and may also carry EON information about other traffic announcements.
ON	ON	A traffic announcement is being broadcast on this programme at present.

NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) indicates AM
     < > indicates FM stereo
  2. In the main section, a tape is being played back.
  3. In the deck section, a tape is being played back.
     ( ) indicates the record state.
  4. In the power section, a tape is being played back.
  5. In the CD section, the CD is stopped.
- Parts marked with "⚠" (⊏☰☰☰⊐) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW701	VOLUME UP/DOWN	OFF
SW702	JOG DIAL	OFF
SW702A	PICKUP IN	OFF
SW703	X-BASS	OFF
SW704	EQUALIZER/DEMO	OFF
SW705	SRS MODE	OFF
SW706	SRS PASS	OFF
SW707	FF	OFF
SW708	STOP	OFF
SW709	EDIT NORMAL	OFF
SW710	EDIT HIGH	OFF
SW711	RECORD/PAUSE	OFF
SW712	FORWARD PLAY	OFF
SW713	DOLBY-NR	OFF
SW714	Q-SOUND	OFF
SW715	VIRTUAL	OFF
SW716	DOLBY-PRO LOGIC	OFF
SW717	REWIND	OFF
SW718	CD PAUSE	OFF
SW719	REVERSE PLAY	OFF
SW720	REVERSE MODE	OFF
SW721	CLOCK	OFF
SW722	TIMER	OFF
SW723	SLEEP	OFF
SW724	VIDEO/AUX	OFF
SW725	TAPE 1/2	OFF
SW726	TUNER (BAND)	OFF

REF. NO	DESCRIPTION	POSITION
SW727	CD	OFF
SW728	RDS PROGRAMME TYPE/TRAFFIC INFORMATION SERCH	OFF
SW729	RDS EON	OFF
SW730	RDS DISPLAY MODE	OFF
SW731	RDS DISPLAY APSM	OFF
SW732	CLEAR	OFF
SW733	MEMORY/SET	OFF
SW734	ON/STAND-BY	OFF
SW739	DISC 3 OPEN/CLOSE	OFF
SW740	DISC 3	OFF
SW741	DISC 2 OPEN/CLOSE	OFF
SW742	DISC 2	OFF
SW743	DISC 1 OPEN/CLOSE	OFF
SW744	DISC 1	OFF
SWB101,102	CAM1, 2	OFF
SWB103,104	CAM3, 4	OFF
SWB105	CD EJECT	OFF
SWB106	CD TRAY CLASE	OFF
SWB107	CD IN	OFF
SWB108	CD SET	OFF
SWE1	TAPE 1 PLAY	OFF
SWE2	TAPE 1 CrO_2	OFF
SWE4	TAPE 2 PLAY	OFF
SWE5	TAPE 2 CrO_2	OFF
SWE7	TAPE 2 SIDE A FP	OFF
SWE8	TAPE 2 SIDE B FP	OFF

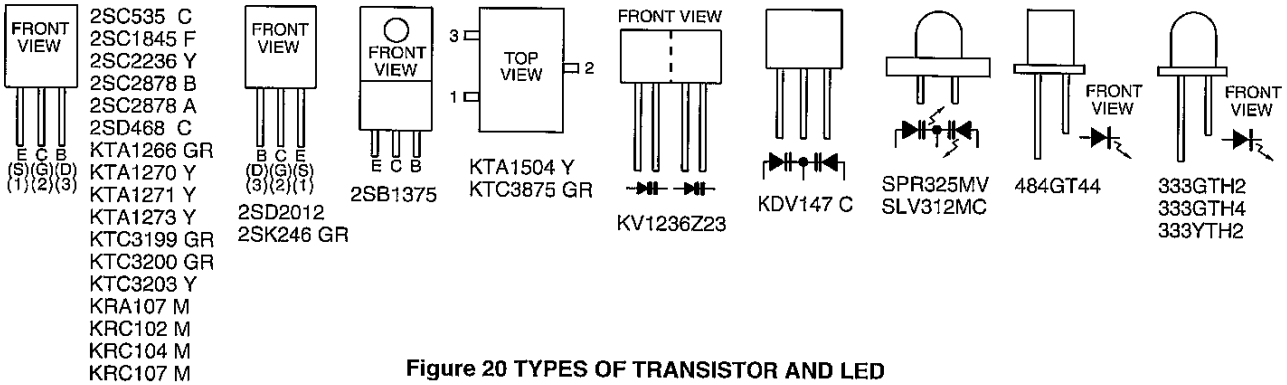


Figure 20 TYPES OF TRANSISTOR AND LED

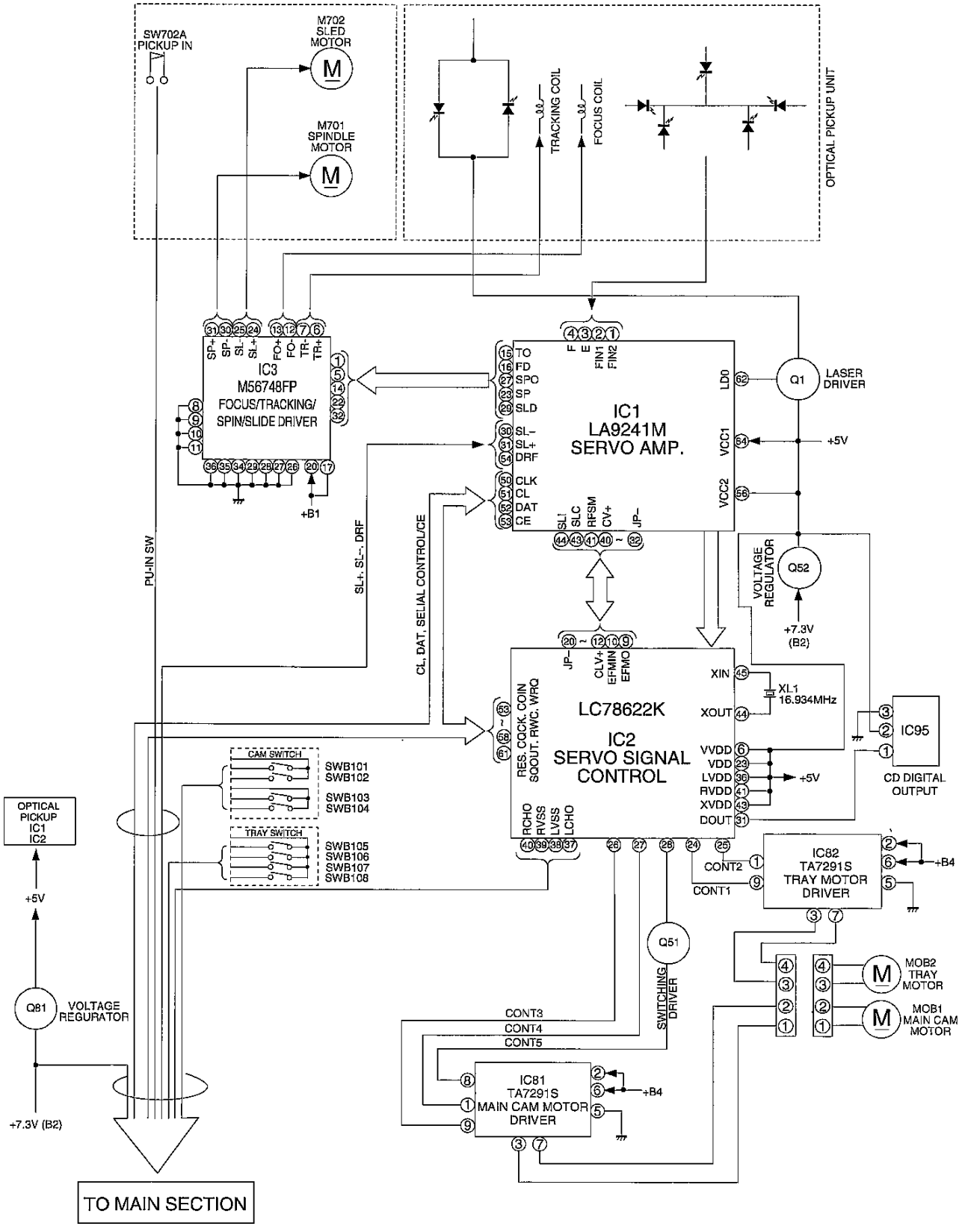


Figure 21 BLOCK DIAGRAM (1/3)

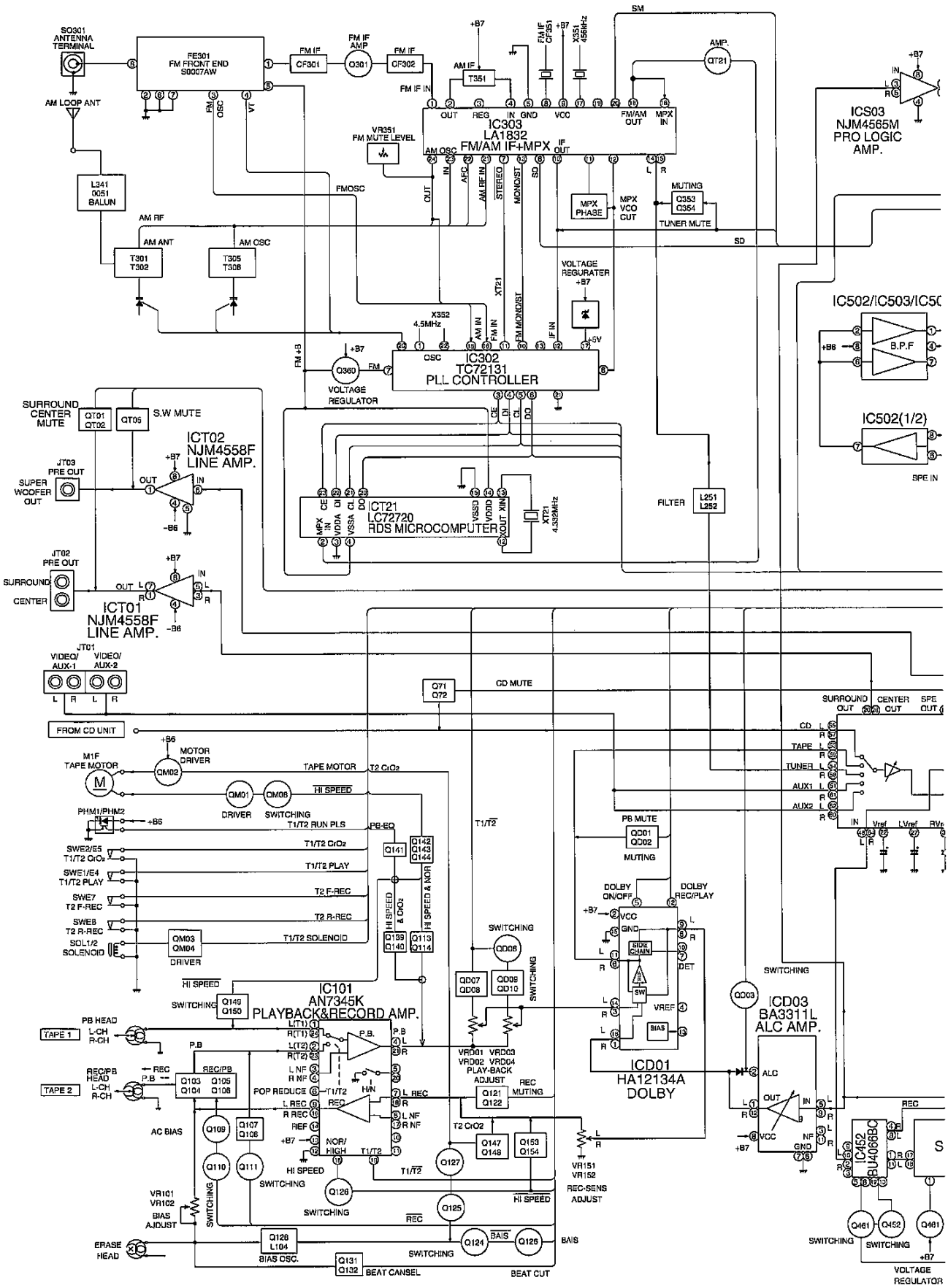


Figure 22 BLOCK DIAGRAM (2/3)

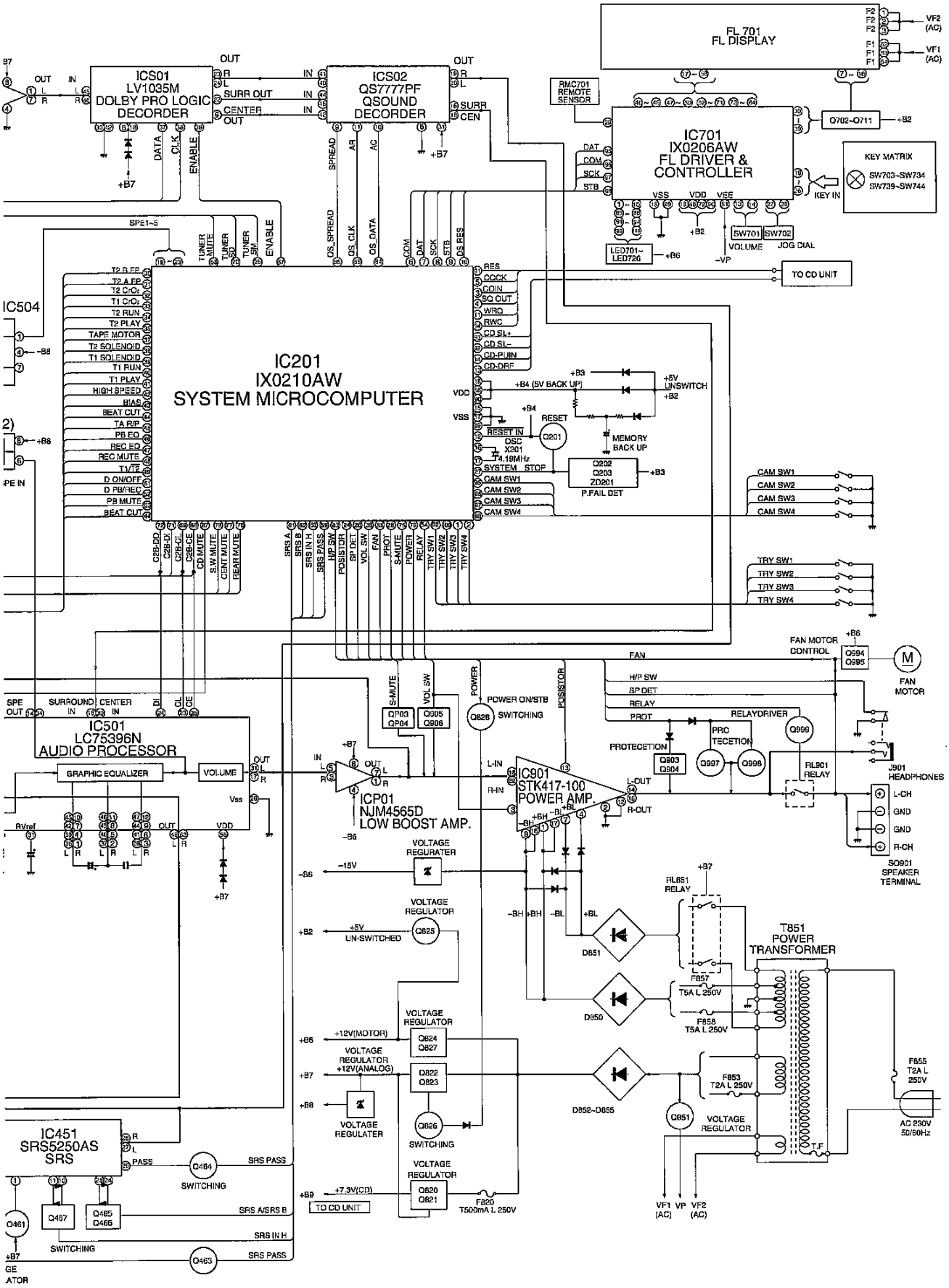


Figure 23 BLOCK DIAGRAM (3/3)

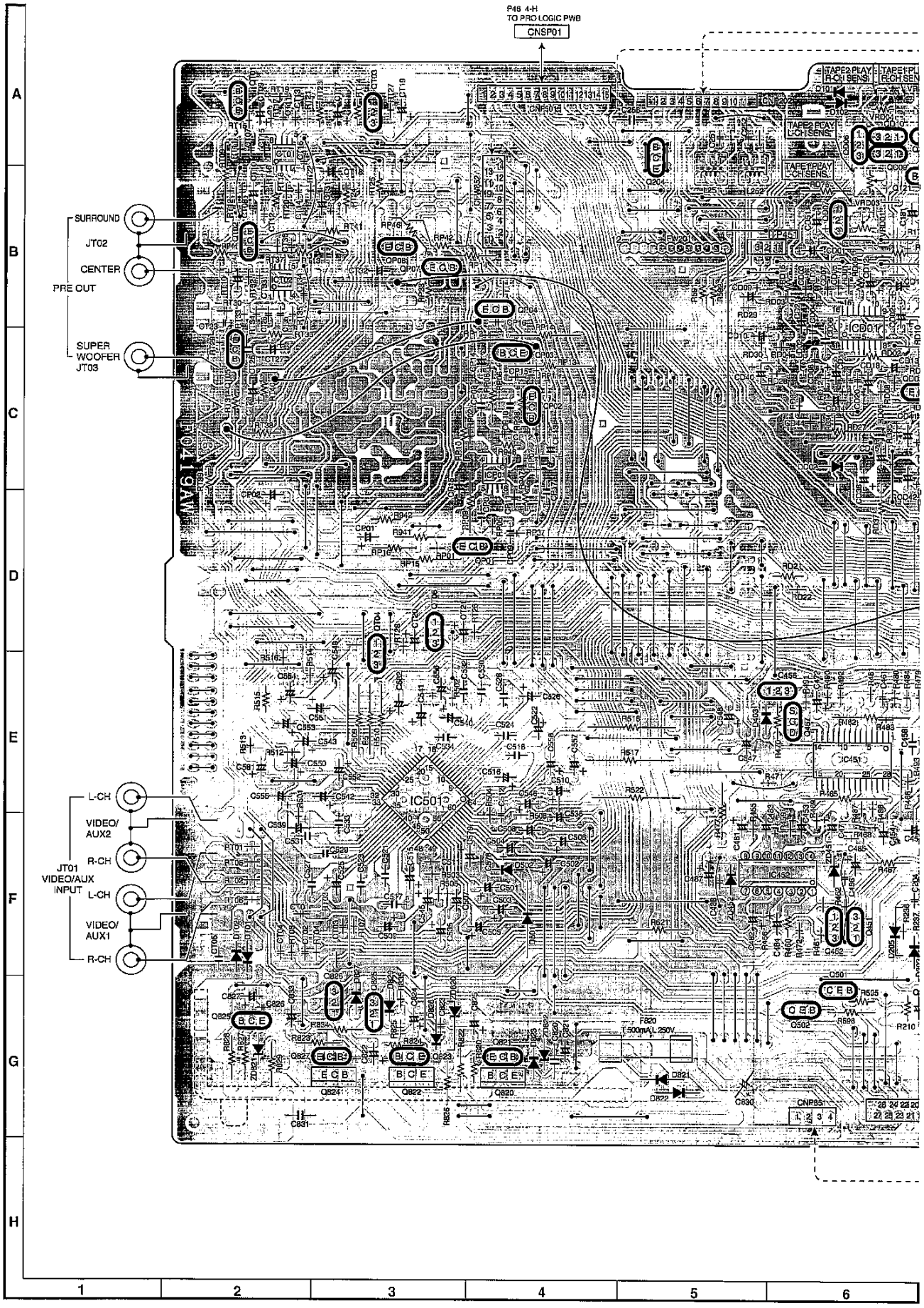
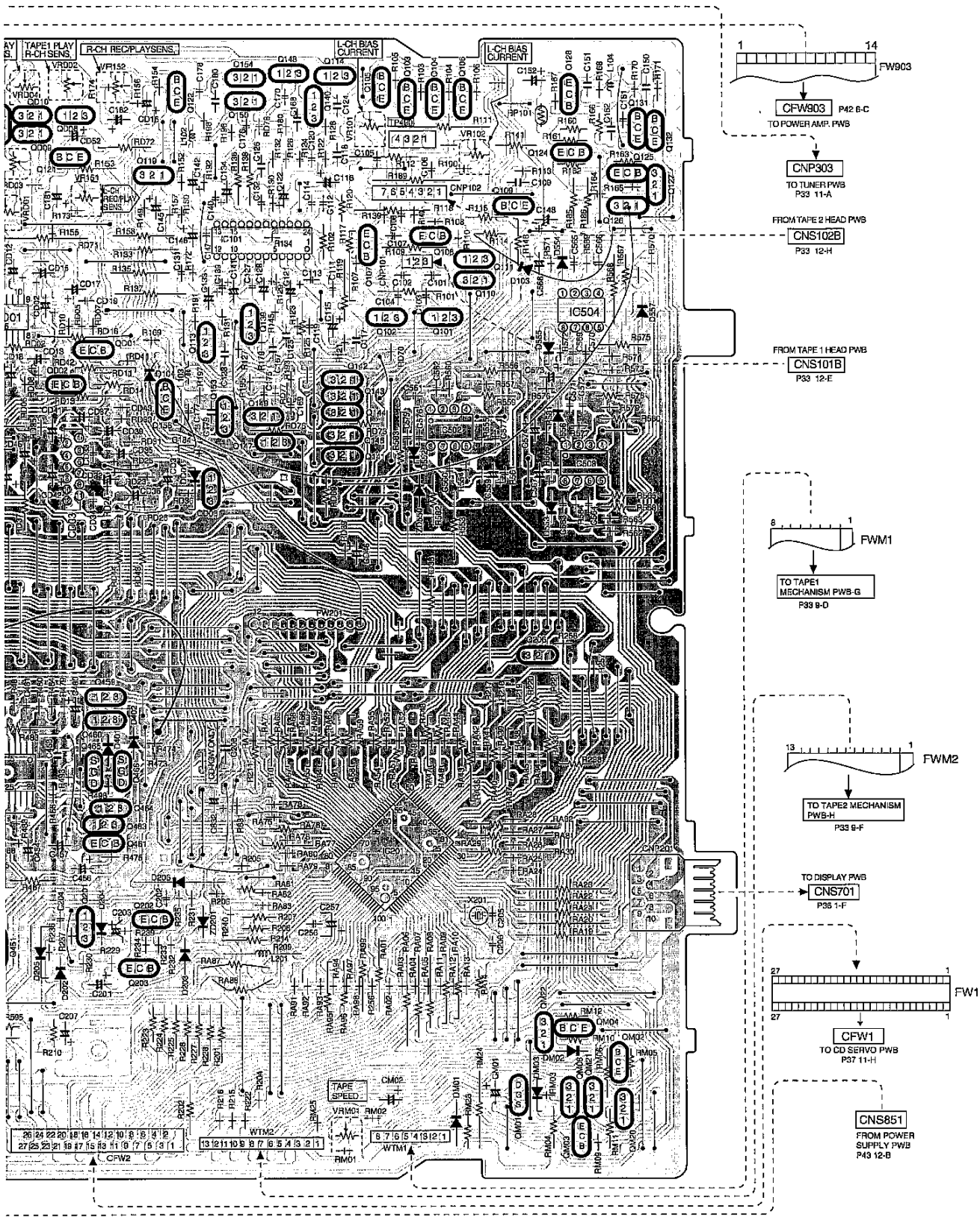


Figure 24 WIRING OF P.W.BOARD (1/8)



7	8	9	10	11	12

Figure 25 WIRING OF P.W.BOARD (2/8)

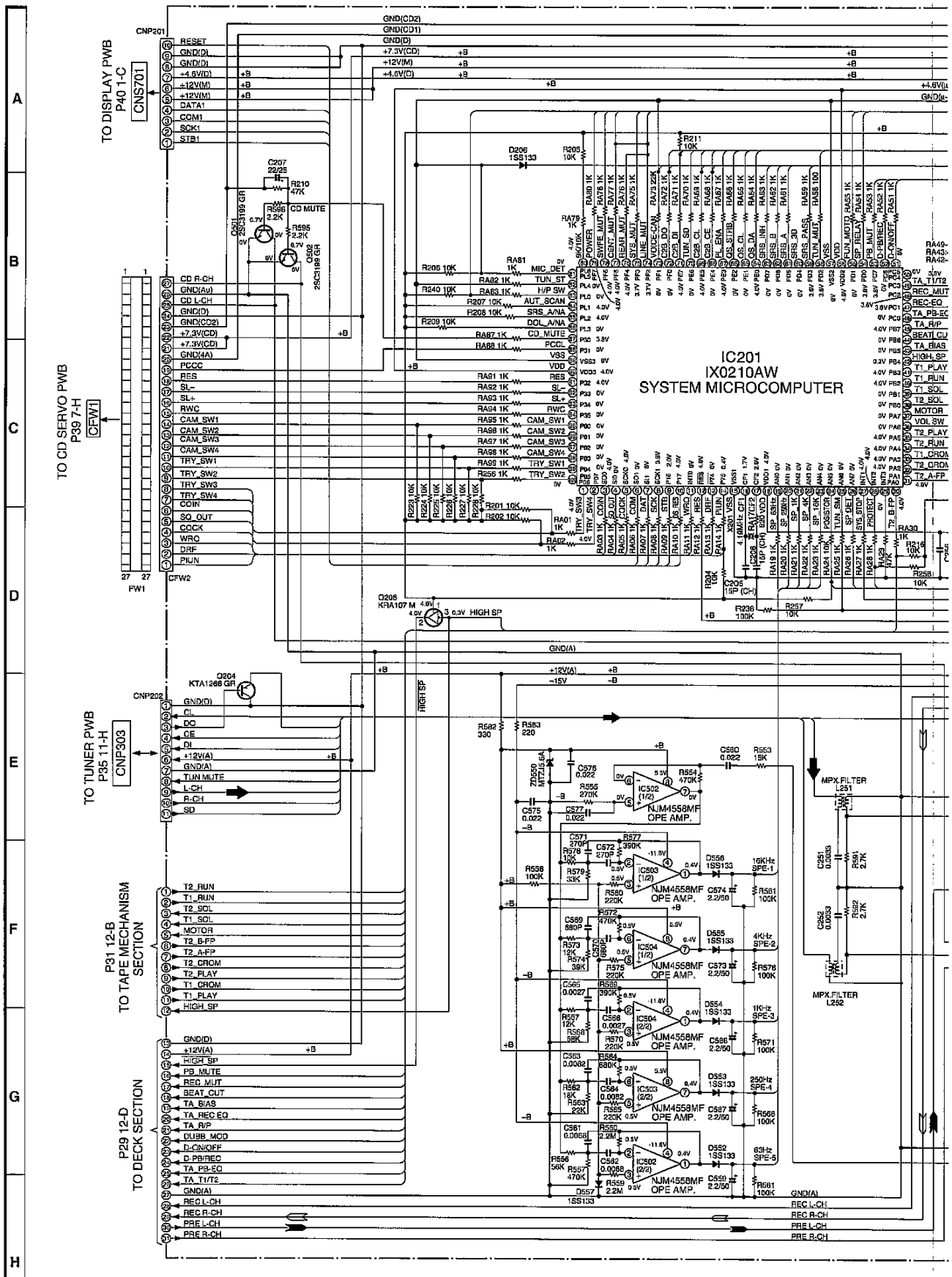
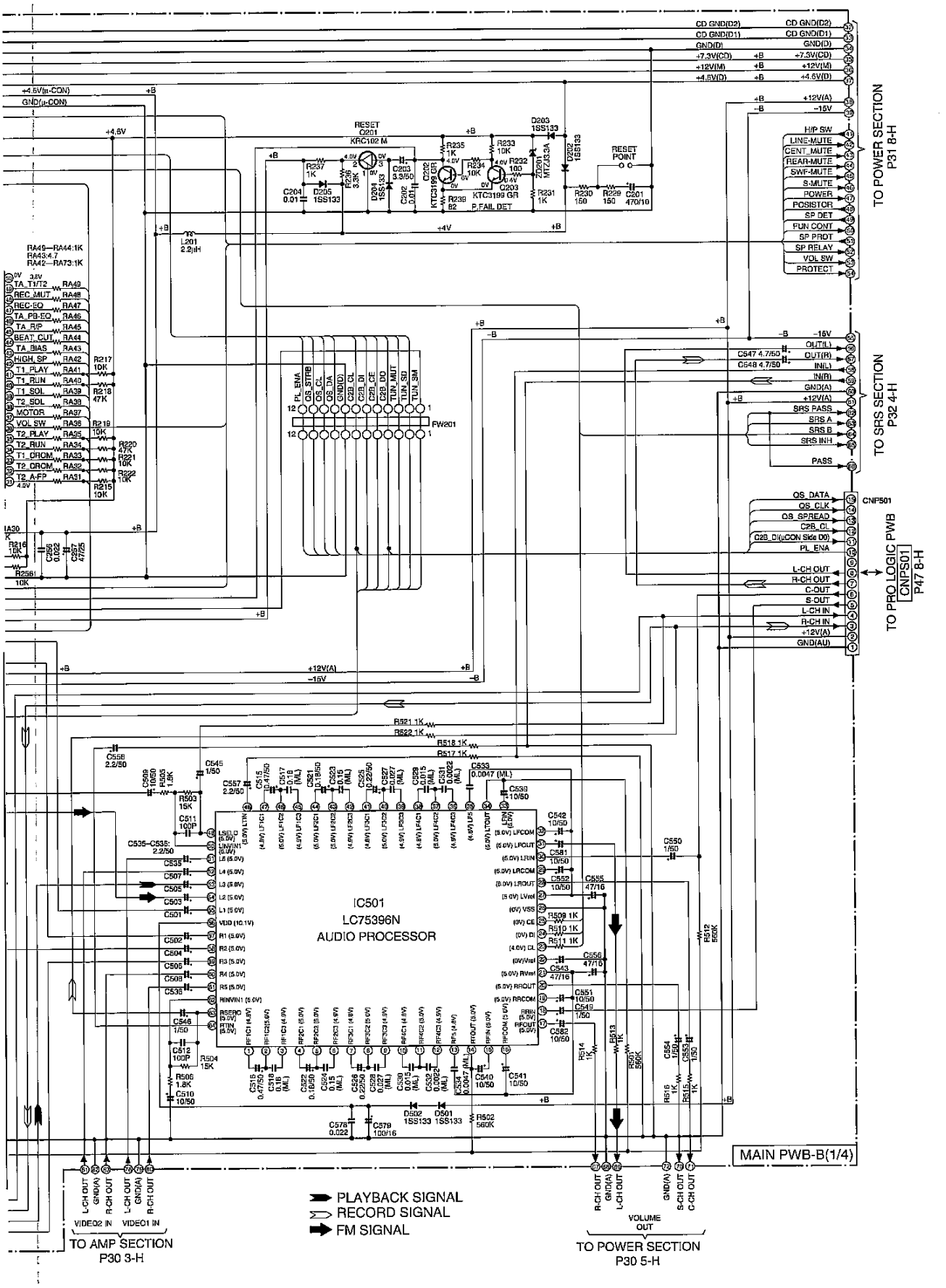
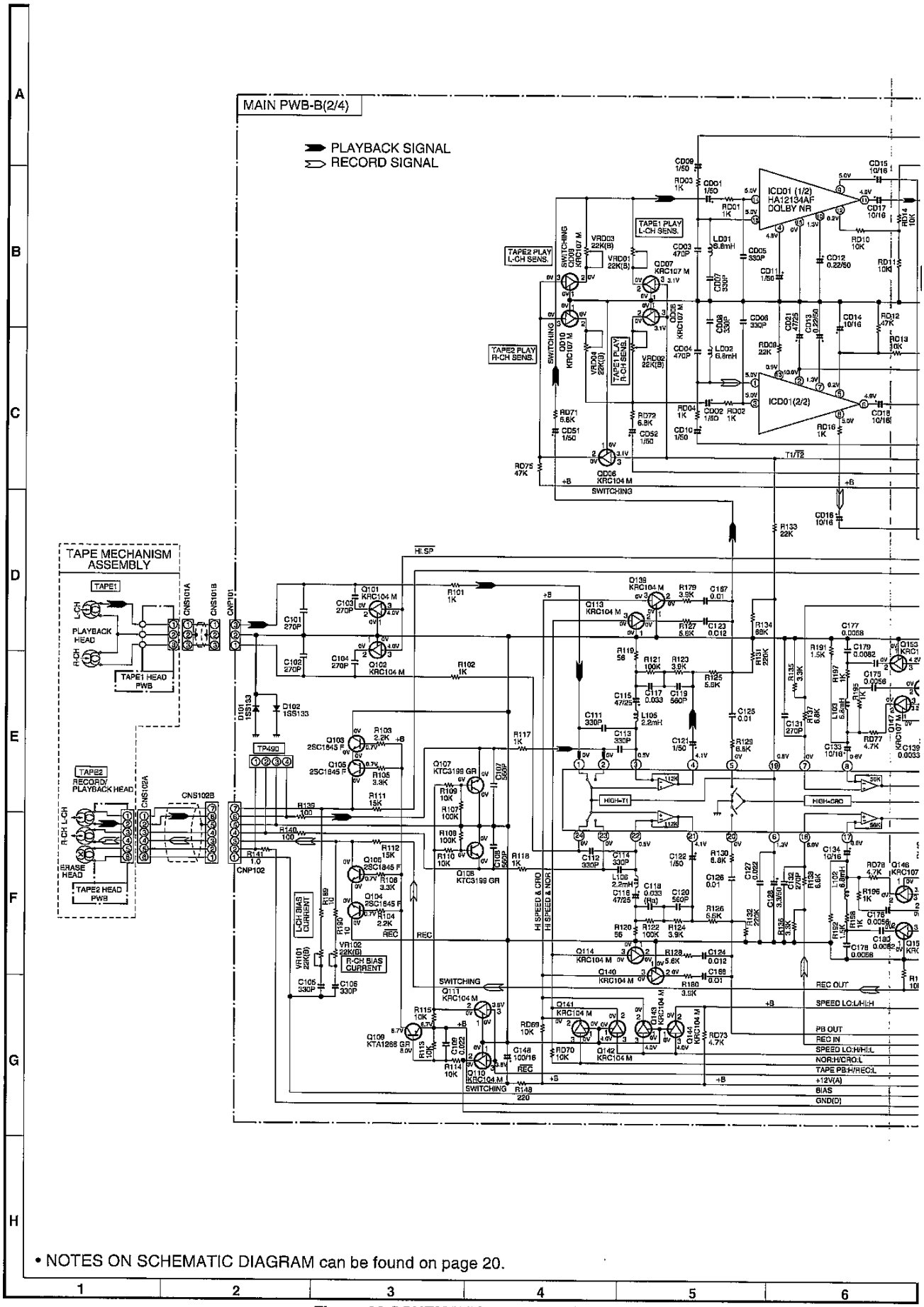


Figure 26 SCHEMATIC DIAGRAM (1/16)



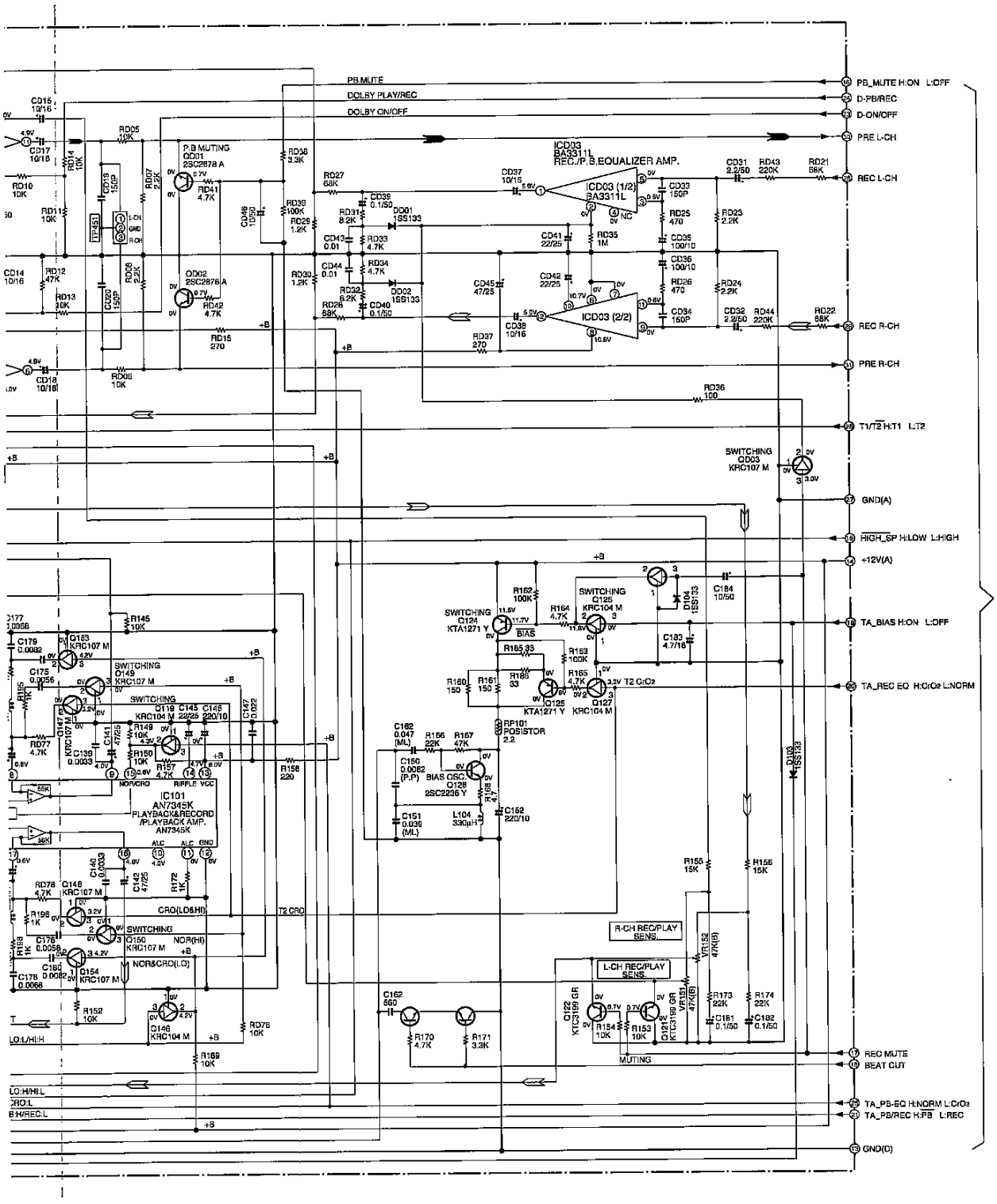
7	8	9	10	11	12

Figure 27 SCHEMATIC DIAGRAM (2/16)



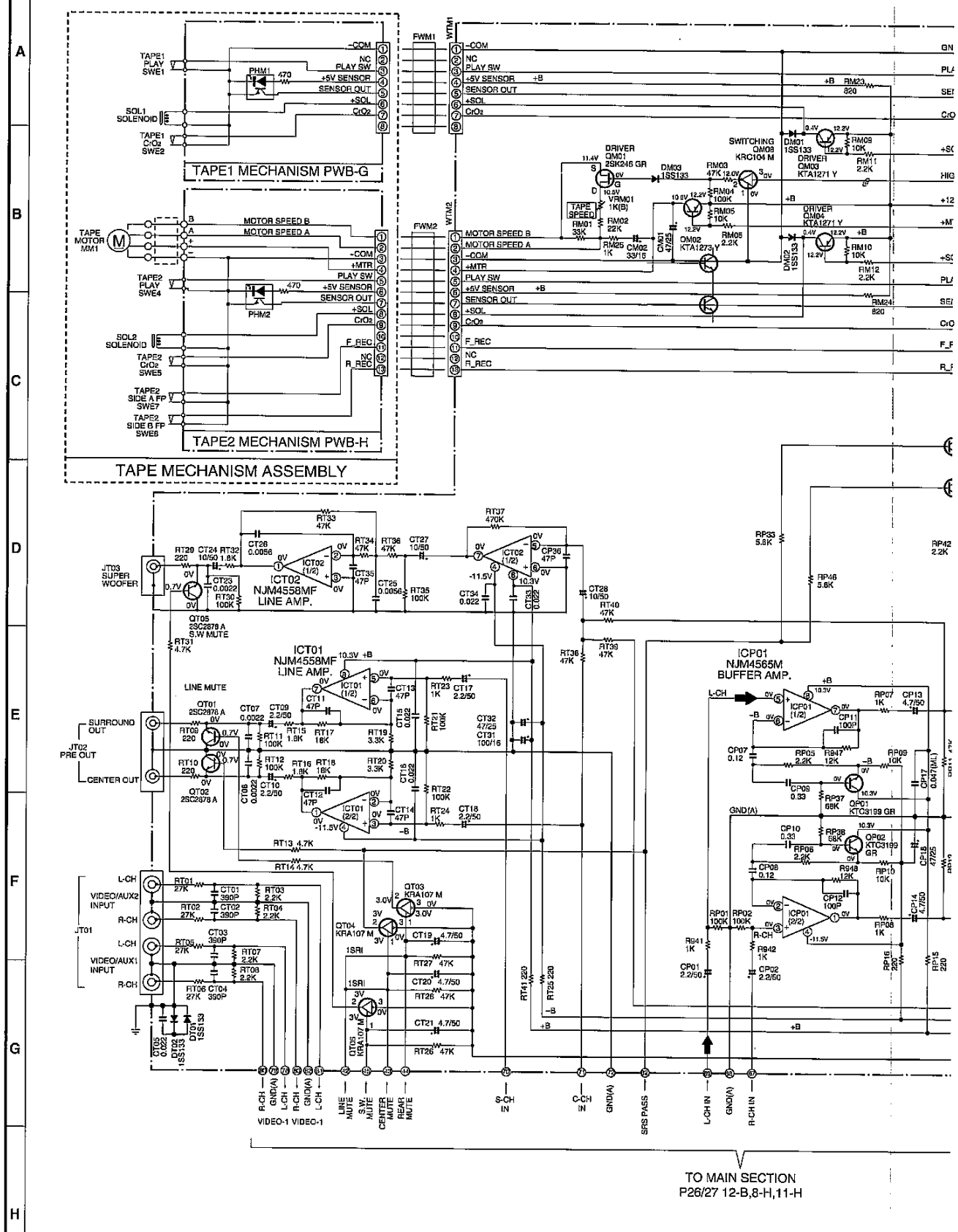
• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 28 SCHEMATIC DIAGRAM (3/16)



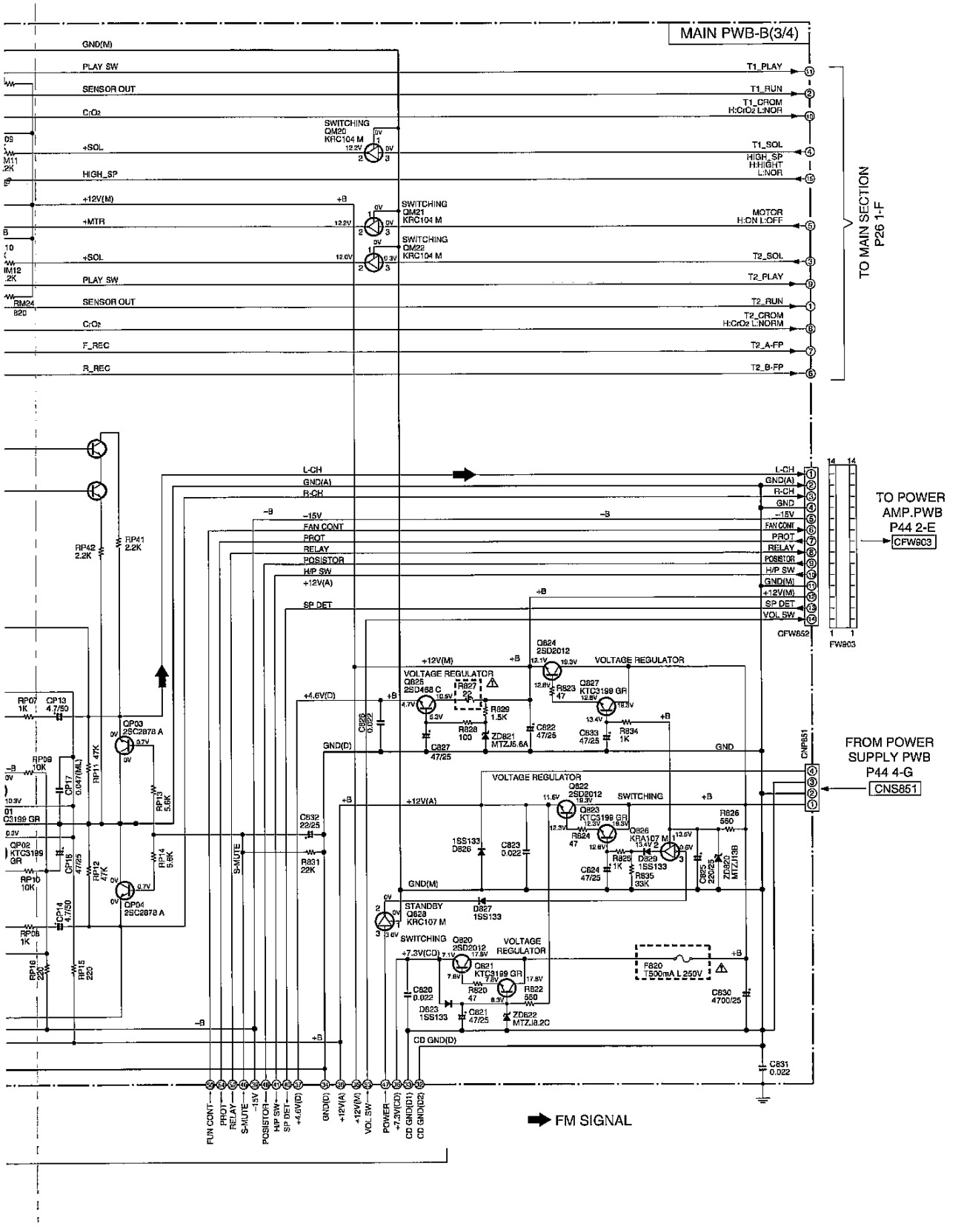
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (4/16)



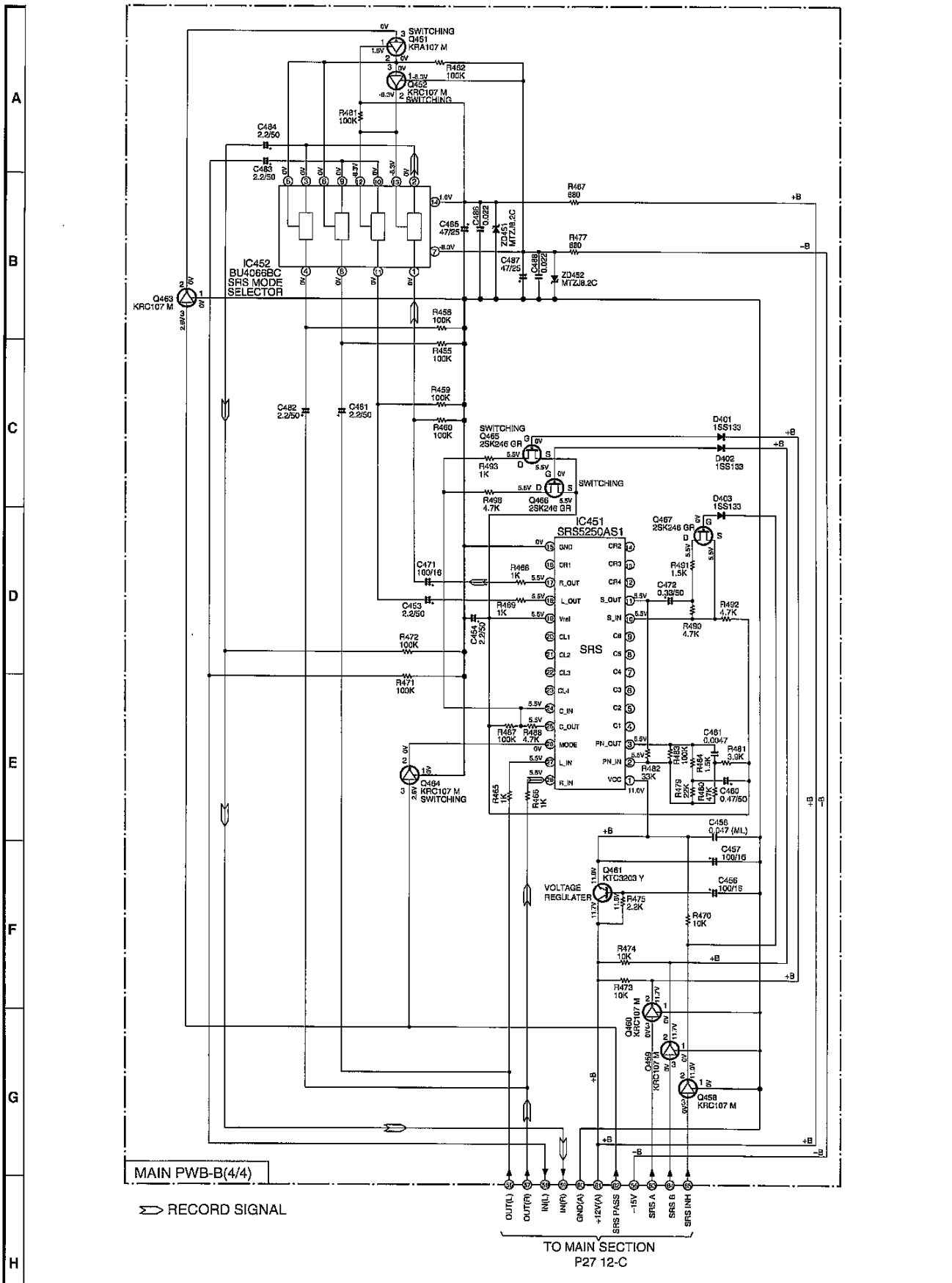
• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 30 SCHEMATIC DIAGRAM (5/16)



7	8	9	10	11	12

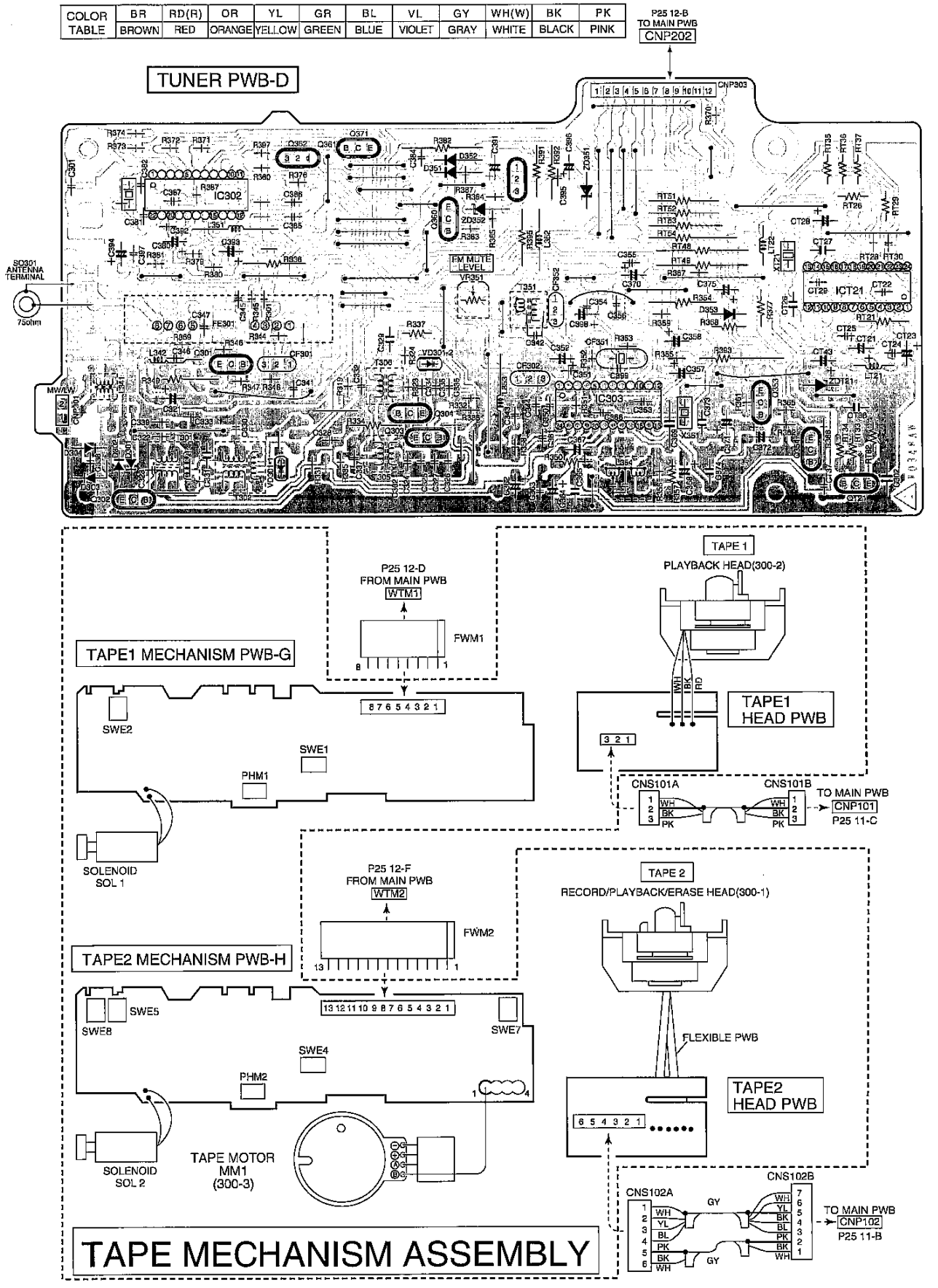
Figure 31 SCHEMATIC DIAGRAM (6/16)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

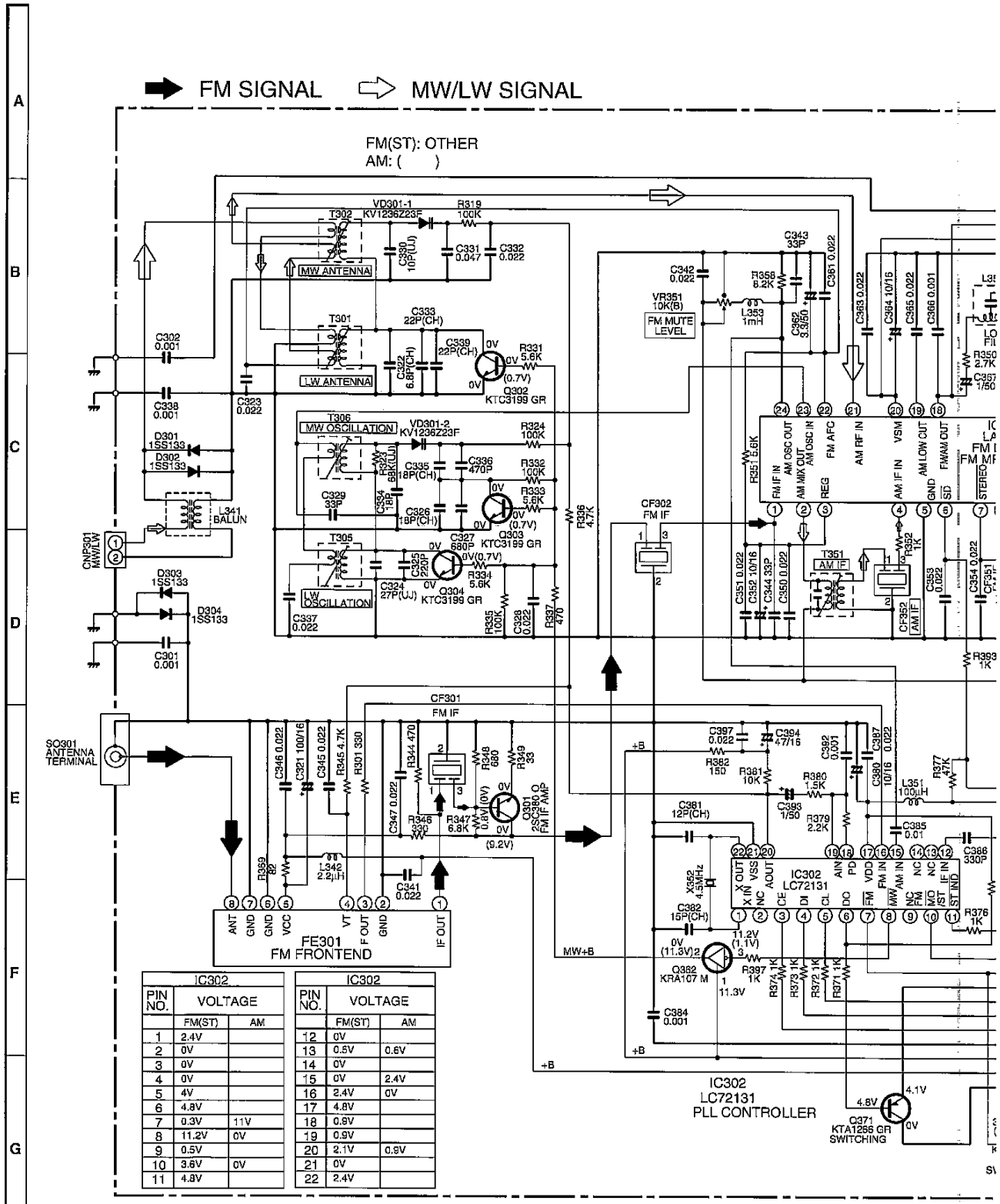
Figure 32 SCHEMATIC DIAGRAM (7/16)

COLOR TABLE	BR BROWN	RD(R) RED	OR ORANGE	YL YELLOW	GR GREEN	BL BLUE	VL VIOLET	GY GRAY	WH(W) WHITE	BK BLACK	PK PINK



7	8	9	10	11	12

Figure 33 WIRING OF P.W.BOARD (3/8)

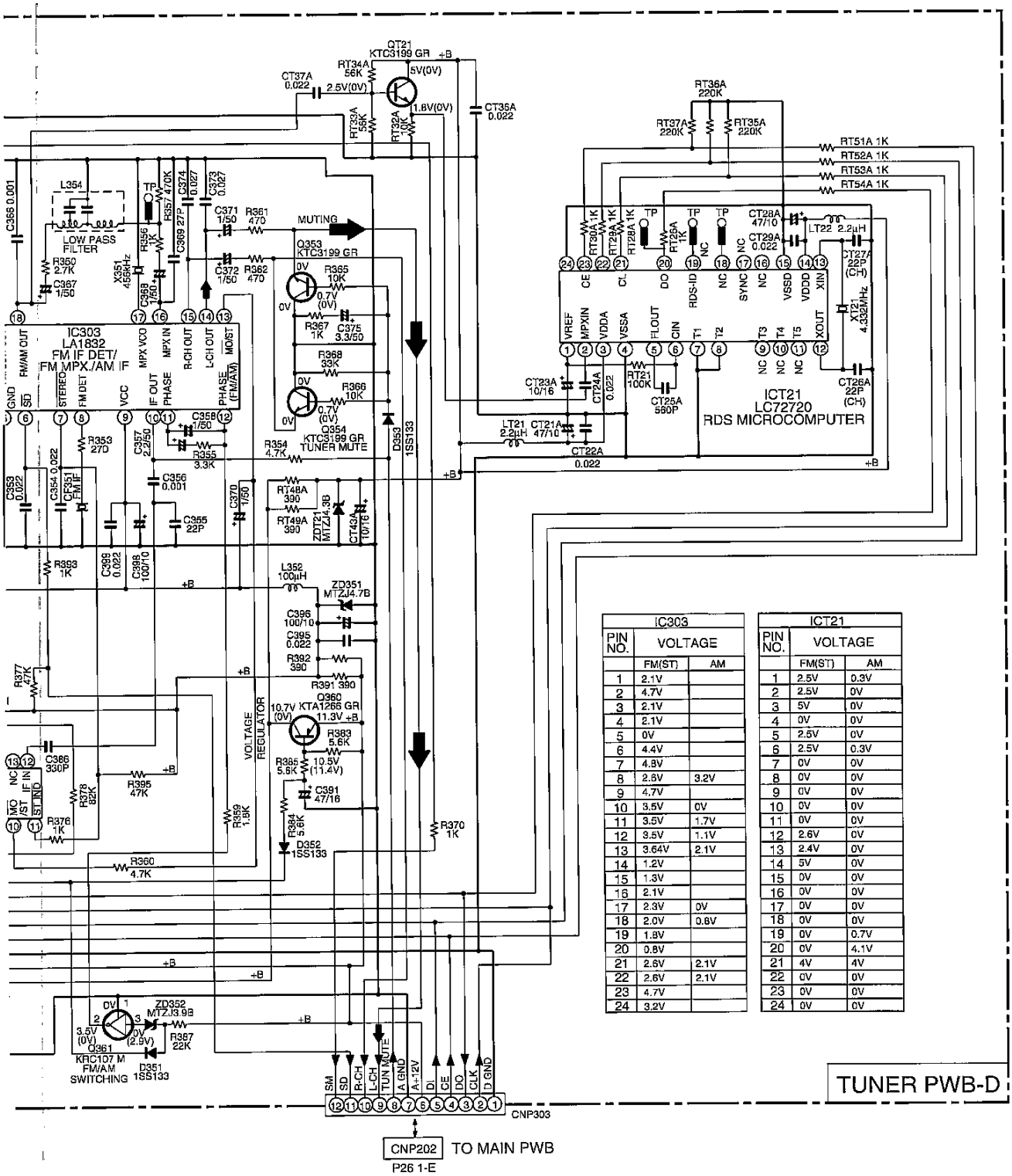


IC302		
PIN NO.	VOLTAGE	
	FM(ST)	AM
1	2.4V	
2	0V	
3	0V	
4	0V	
5	4V	
6	4.8V	
7	0.3V	11V
8	11.2V	0V
9	0.5V	
10	3.6V	0V
11	4.8V	

IC302		
PIN NO.	VOLTAGE	
	FM(ST)	AM
12	0V	
13	0.5V	0.6V
14	0V	
15	0V	2.4V
16	2.4V	0V
17	4.8V	
18	0.9V	
19	0.9V	
20	2.1V	0.9V
21	0V	
22	2.4V	

• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 34 SCHEMATIC DIAGRAM (8/16)



IC303		
PIN NO.	VOLTAGE	
	FM(ST)	AM
1	2.1V	
2	4.7V	
3	2.1V	
4	2.1V	
5	0V	
6	4.4V	
7	4.8V	
8	2.5V	3.2V
9	4.7V	
10	3.5V	0V
11	3.5V	1.7V
12	3.5V	1.1V
13	3.64V	2.1V
14	1.2V	
15	1.3V	
16	2.1V	
17	2.3V	0V
18	2.0V	0.8V
19	1.8V	
20	0.8V	
21	2.6V	2.1V
22	2.6V	2.1V
23	4.7V	
24	3.2V	

IC21		
PIN NO.	VOLTAGE	
	FM(ST)	AM
1	2.5V	0.3V
2	2.5V	0V
3	5V	0V
4	0V	0V
5	2.5V	0V
6	2.5V	0.3V
7	0V	0V
8	0V	0V
9	0V	0V
10	0V	0V
11	0V	0V
12	2.6V	0V
13	2.4V	0V
14	5V	0V
15	0V	0V
16	0V	0V
17	0V	0V
18	0V	0V
19	0V	0.7V
20	0V	4.1V
21	4V	4V
22	0V	0V
23	0V	0V
24	0V	0V

7	8	9	10	11	12

Figure 35 SCHEMATIC DIAGRAM (9/16)

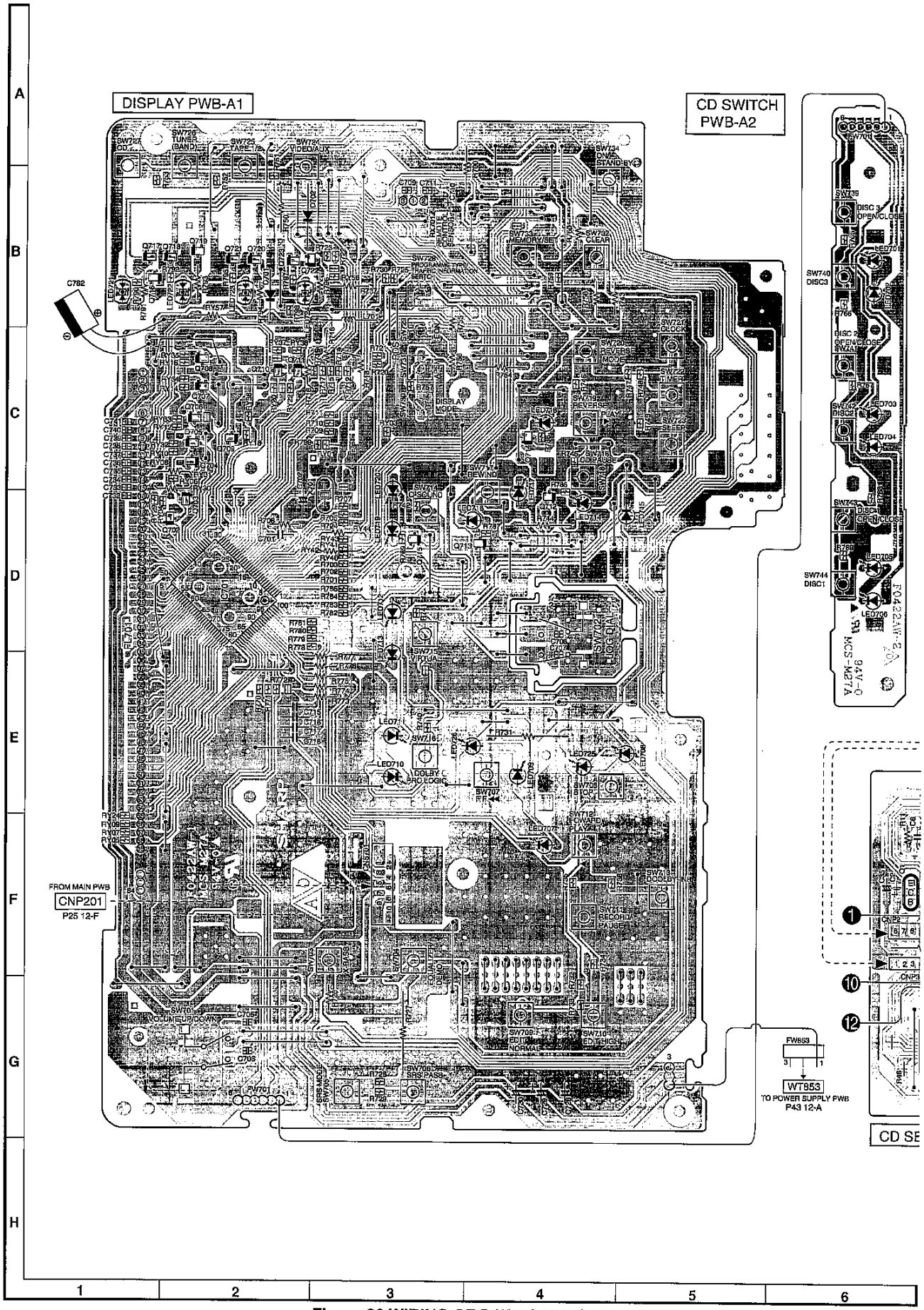
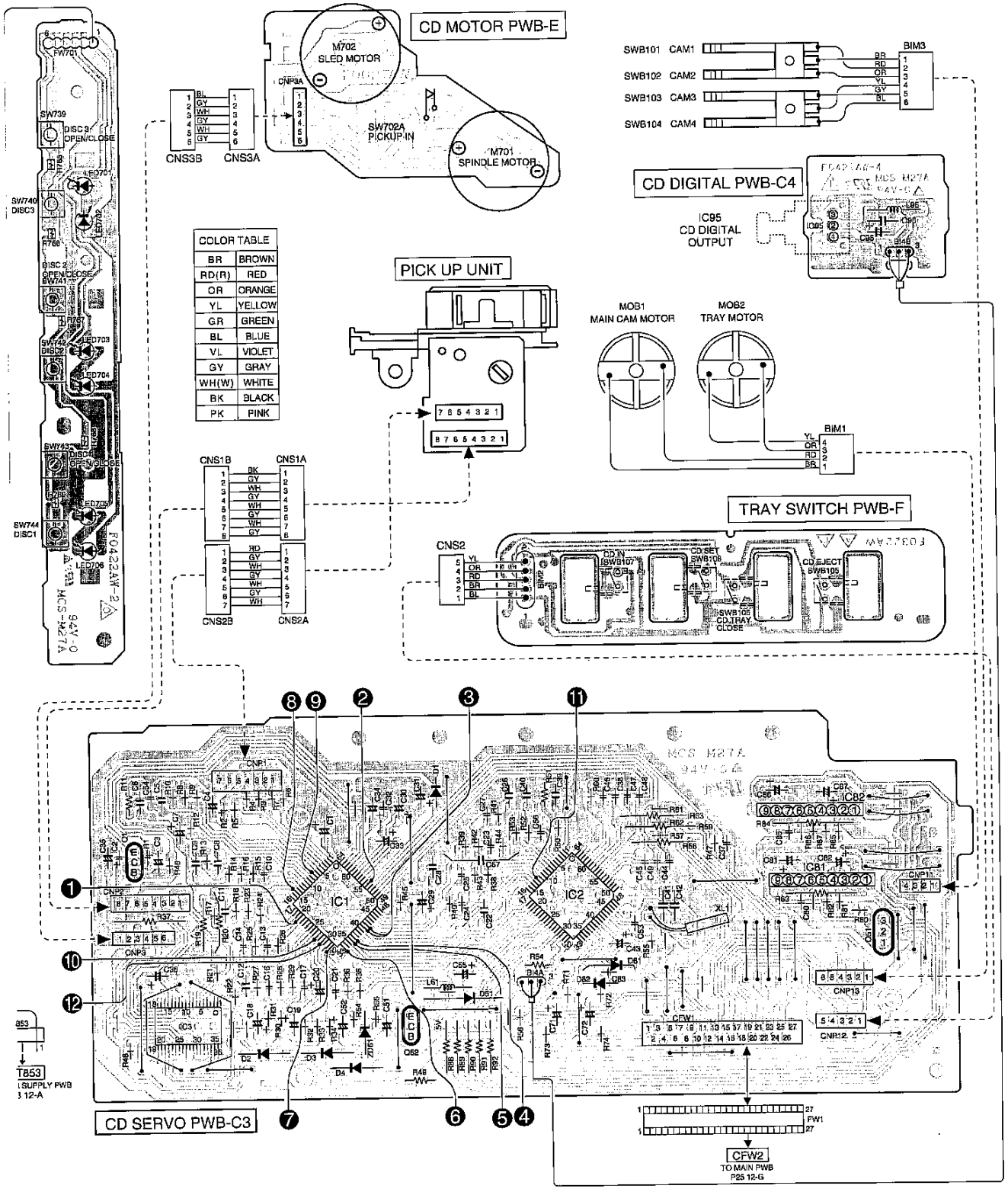


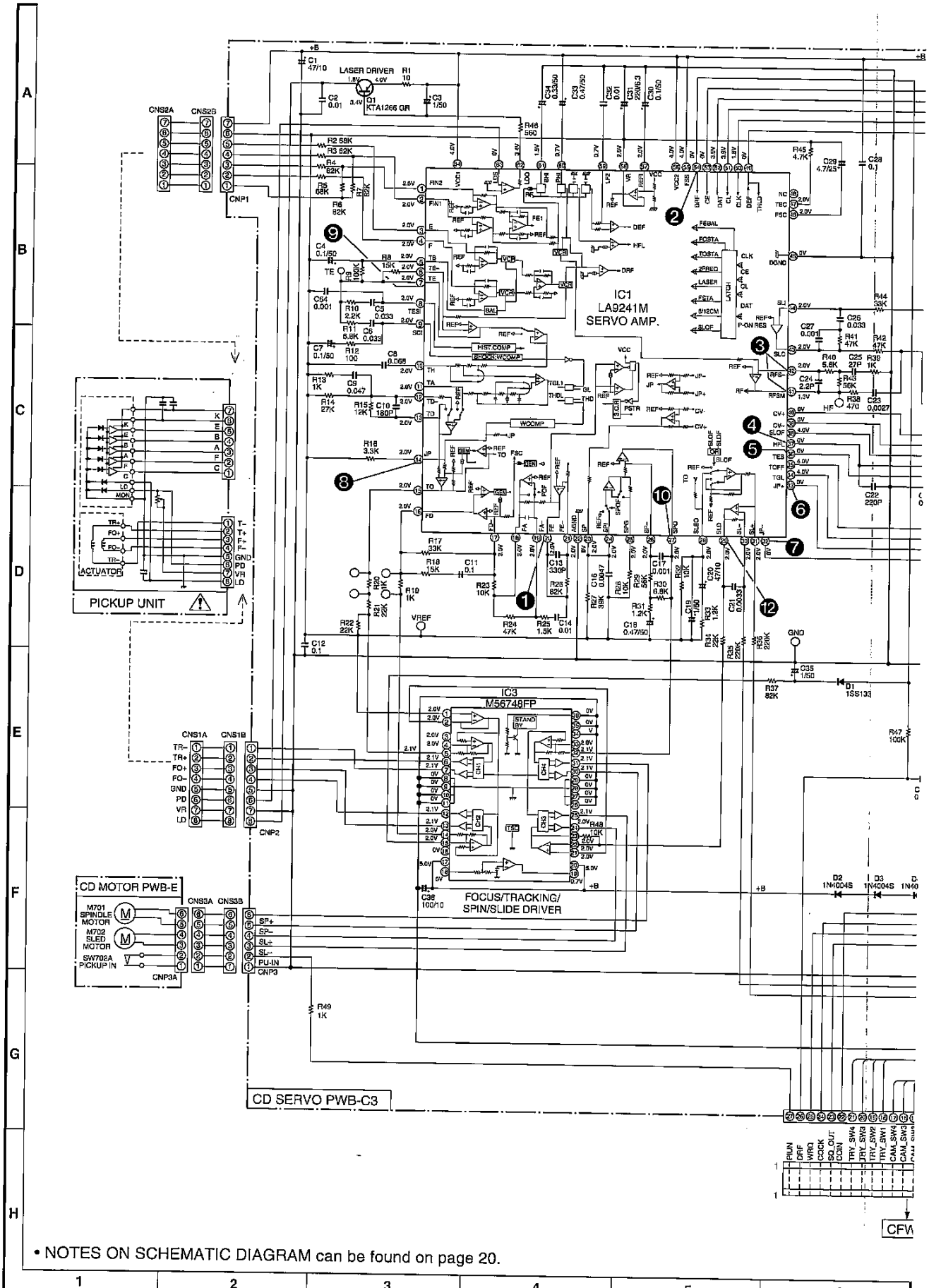
Figure 36 WIRING OF P.W.BOARD (4/8)



• The numbers ❶ to ⓬ are waveform numbers shown in page 48.

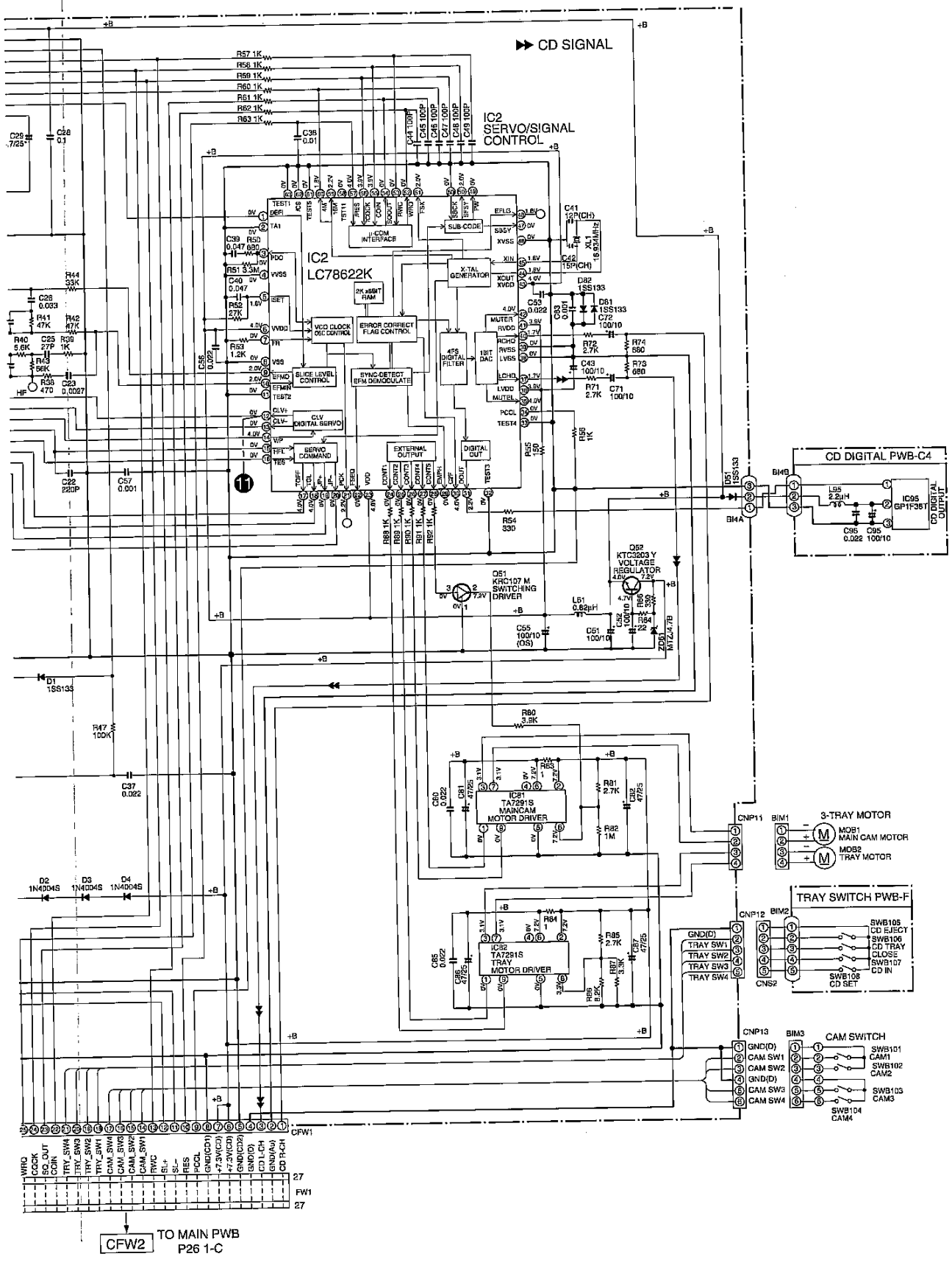
7	8	9	10	11	12

Figure 37 WIRING OF P.W.BOARD (5/8)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

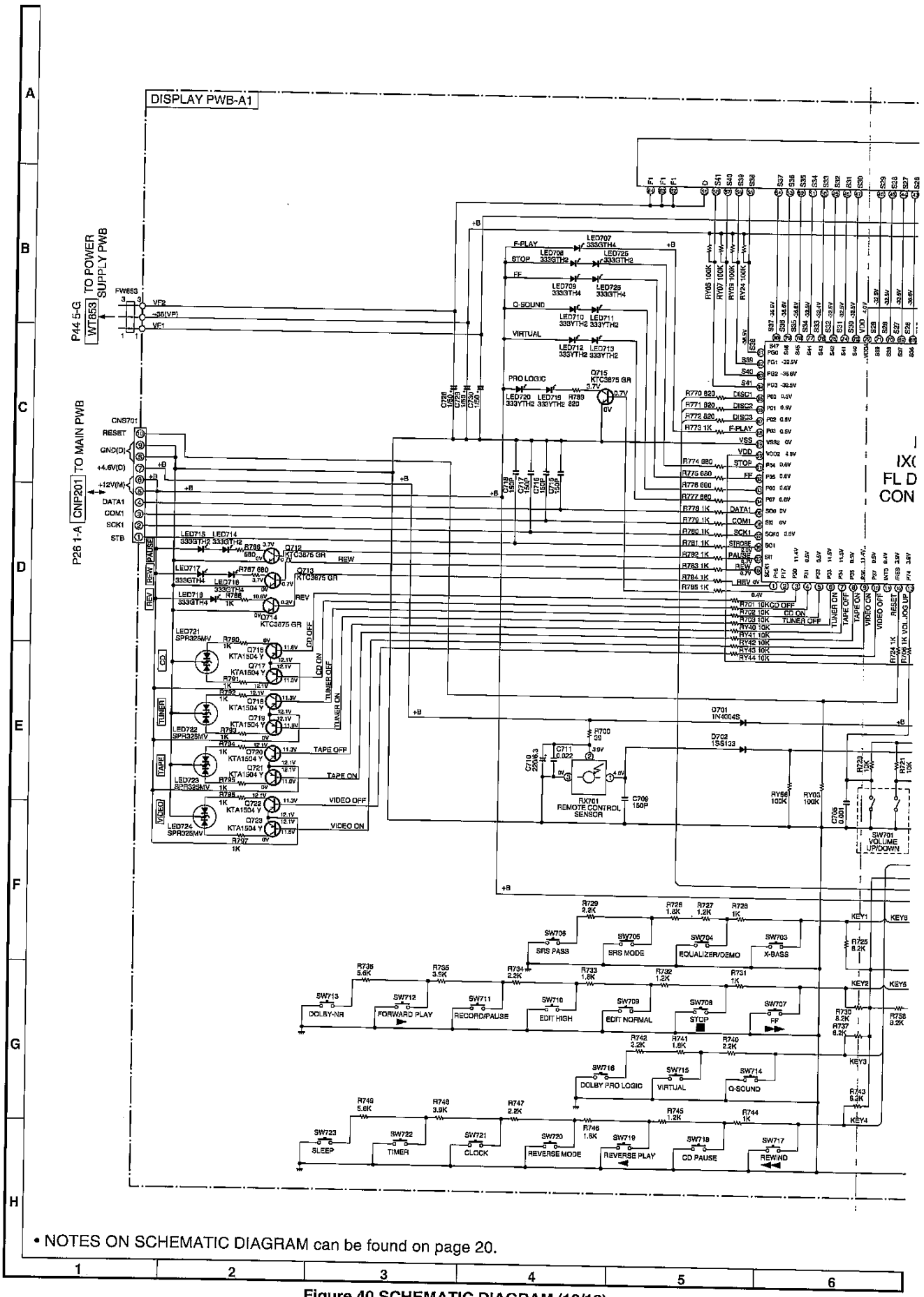
Figure 38 SCHEMATIC DIAGRAM (10/16)



• The numbers ❶ to ⓬ are waveform numbers shown in page 48.

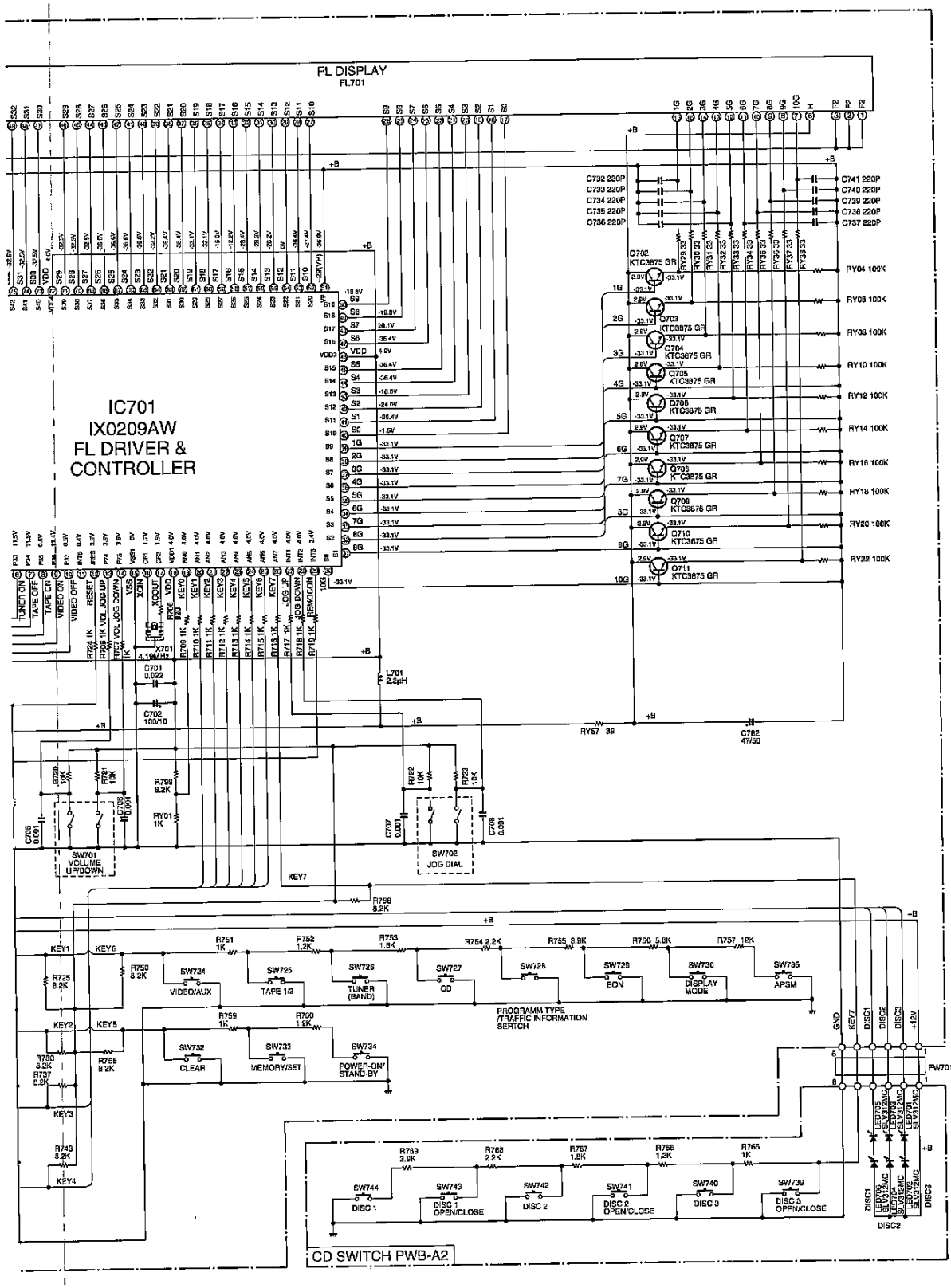
7	8	9	10	11	12

Figure 39 SCHEMATIC DIAGRAM (11/16)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 20.

Figure 40 SCHEMATIC DIAGRAM (12/16)



7	8	9	10	11	12

Figure 41 SCHEMATIC DIAGRAM (13/16)

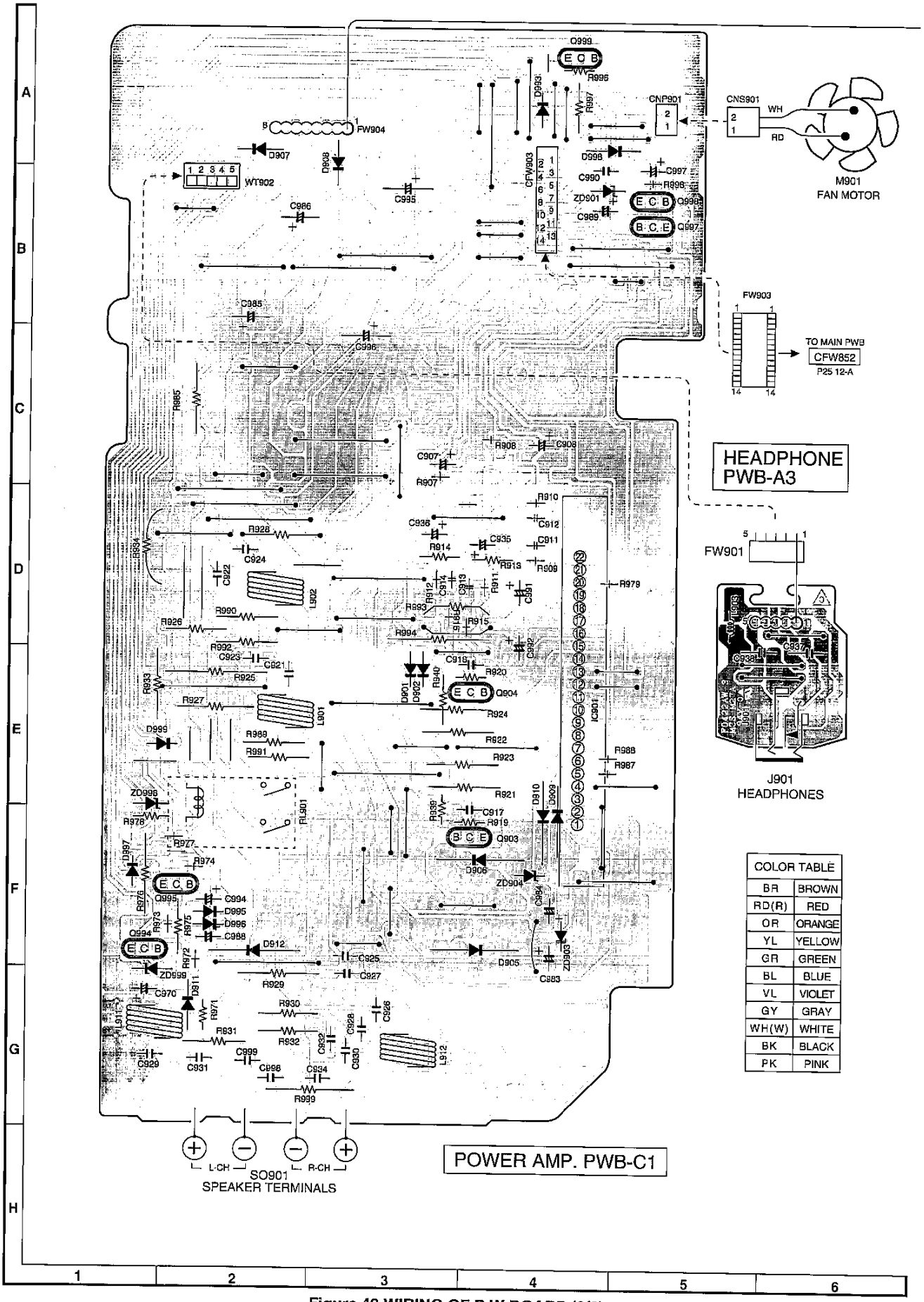
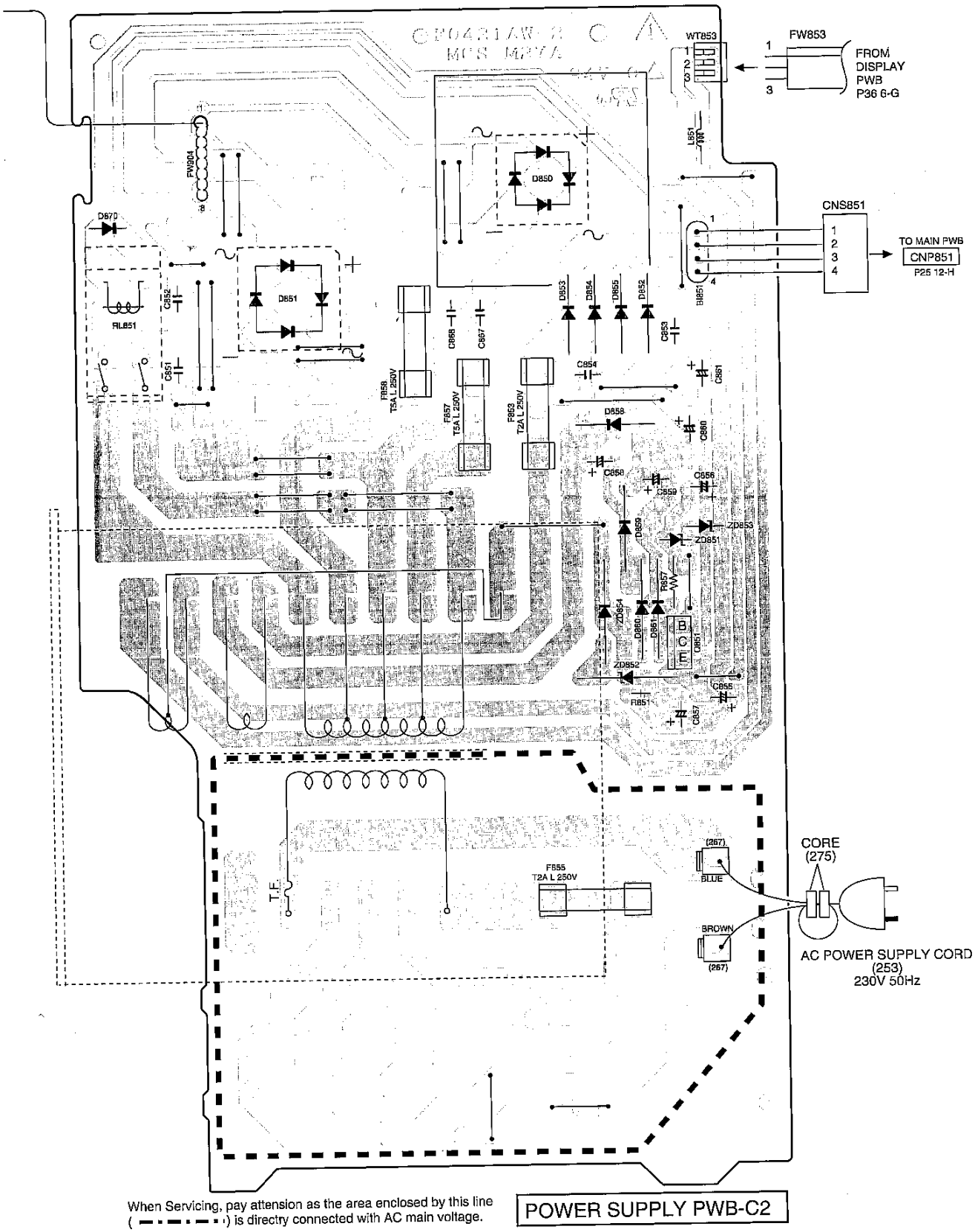


Figure 42 WIRING OF P.W.BOARD (6/8)



7	8	9	10	11	12

Figure 43 WIRING OF P.W.BOARD (7/8)

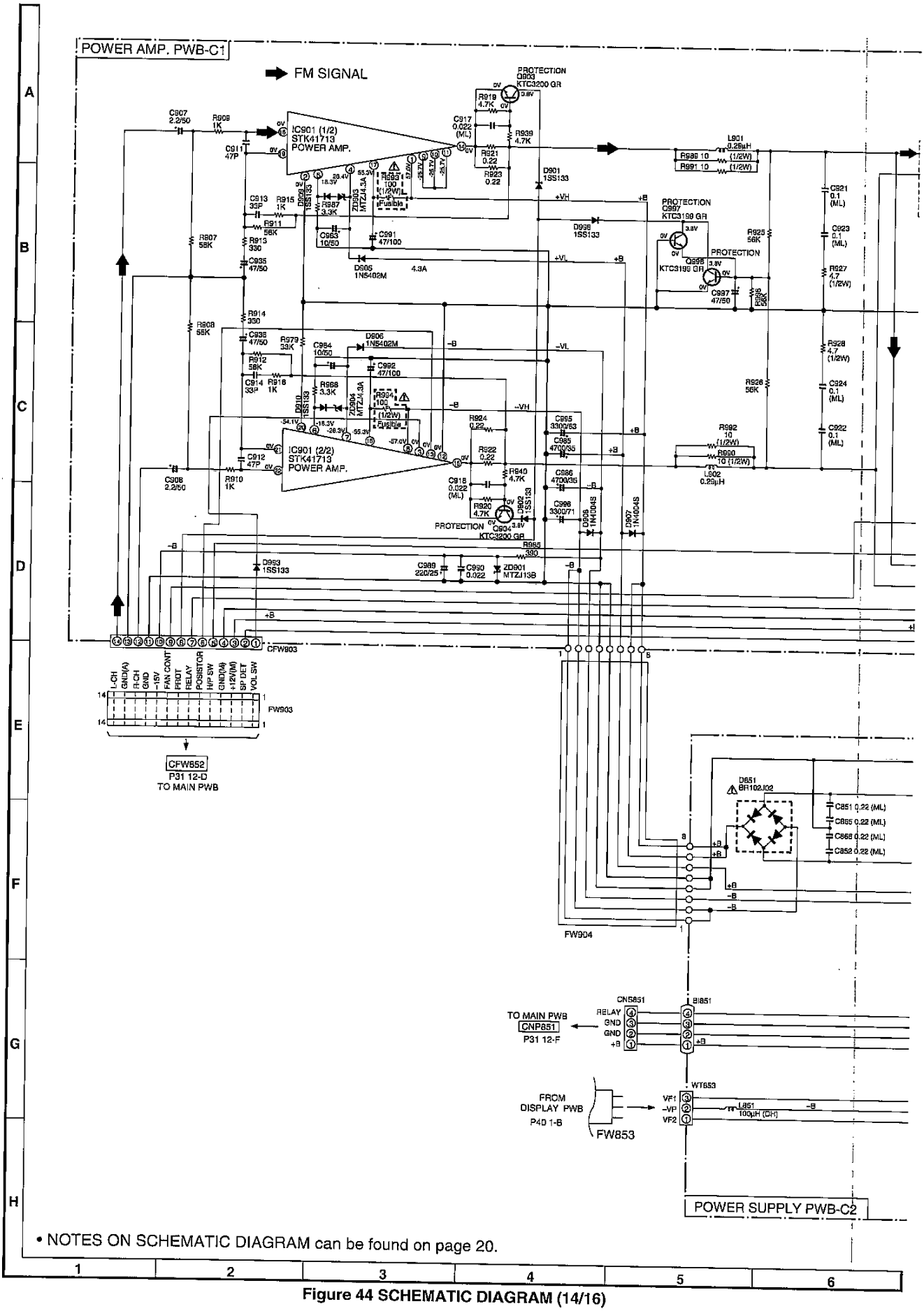
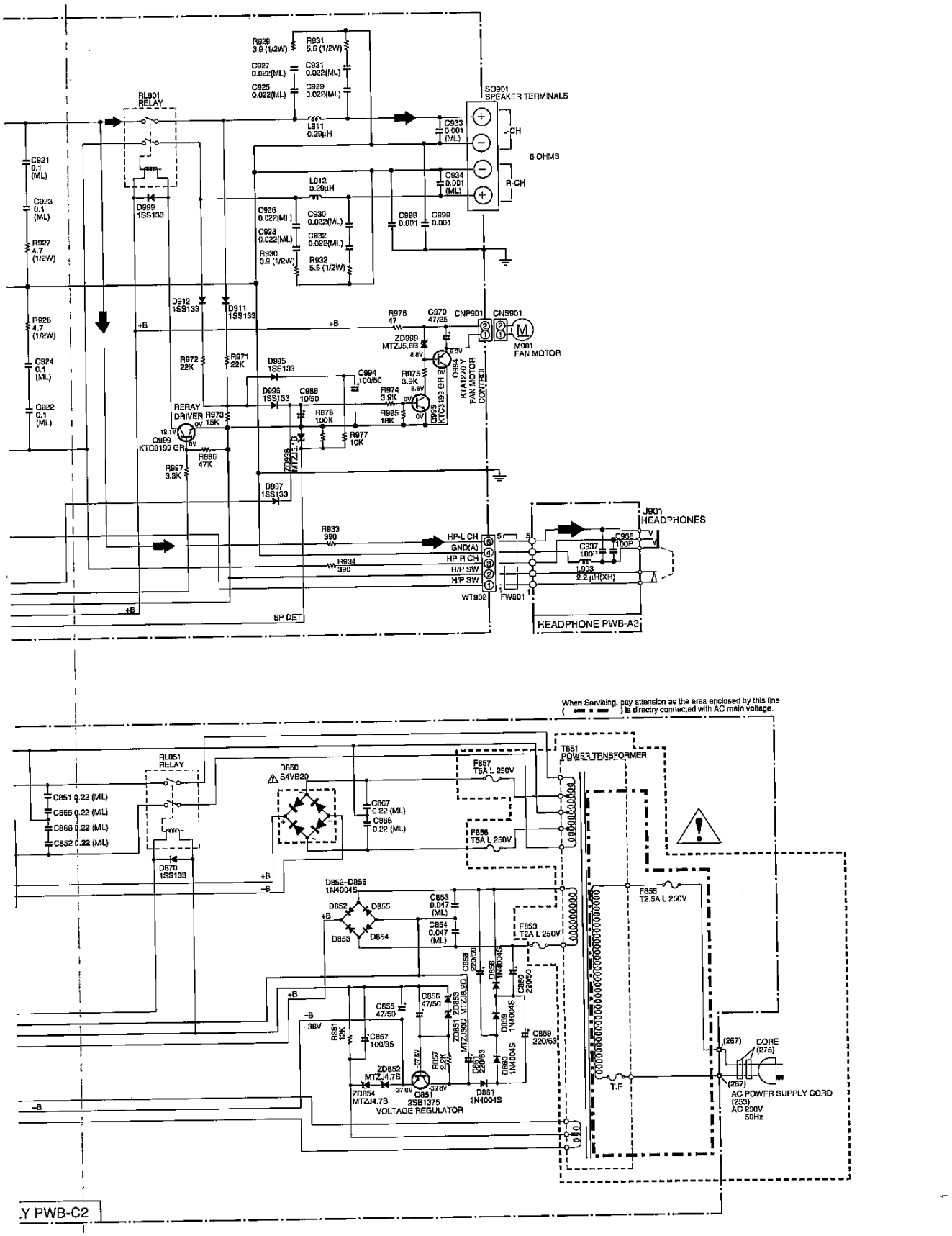


Figure 44 SCHEMATIC DIAGRAM (14/16)



7	8	9	10	11	12

Figure 45 SCHEMATIC DIAGRAM (15/16)

WAVEFORMS OF CD CIRCUIT

STOP → PLAY FOCUS — SERCH

❶ 5ms 0.50 V FE

❷ 5ms 5.0 V DRF

❸ 0.5ms 1.00 V HF

❹ 0.5ms 5.0 V HFL

❺ 0.5ms 5.0 V TES

CUE

❸ 0.5ms 1.00 V HF

❹ 0.5ms 5.0 V HFL

❺ 0.5ms 5.0 V TES

REVIEW

❻ 50ms 10.0 V JP+

❼ 50ms 10.0 V JP-

❽ 50ms 0.50 V JP

❾ 50ms 1.00 V TE

CUE

❻ 0.5ms 10.0 V JP+

❼ 0.5ms 10.0 V JP-

❽ 0.5ms 0.50 V JP

❾ 0.5ms 1.00 V TE

❻ 50ms 10.0 V JP+

❼ 50ms 10.0 V JP-

❽ 50ms 0.50 V JP

❾ 50ms 1.00 V TE

REVIEW

❻ 0.5ms 10.0 V JP+

❼ 0.5ms 10.0 V JP-

❽ 0.5ms 0.50 V JP

❾ 0.5ms 1.00 V TE

NORMAL DISC TN0=01

❿ 20ms 1.00 V SPO

⓫ 20ms 2.00 V CLV+

PLAY

TCD-712 (140mm) TN0=01

❿ 50ms 1.00 V SPO

⓫ 50ms 2.00 V CLV+

PLAY

TCD-712

⓬ 5ms 100mV SLD

PLAY

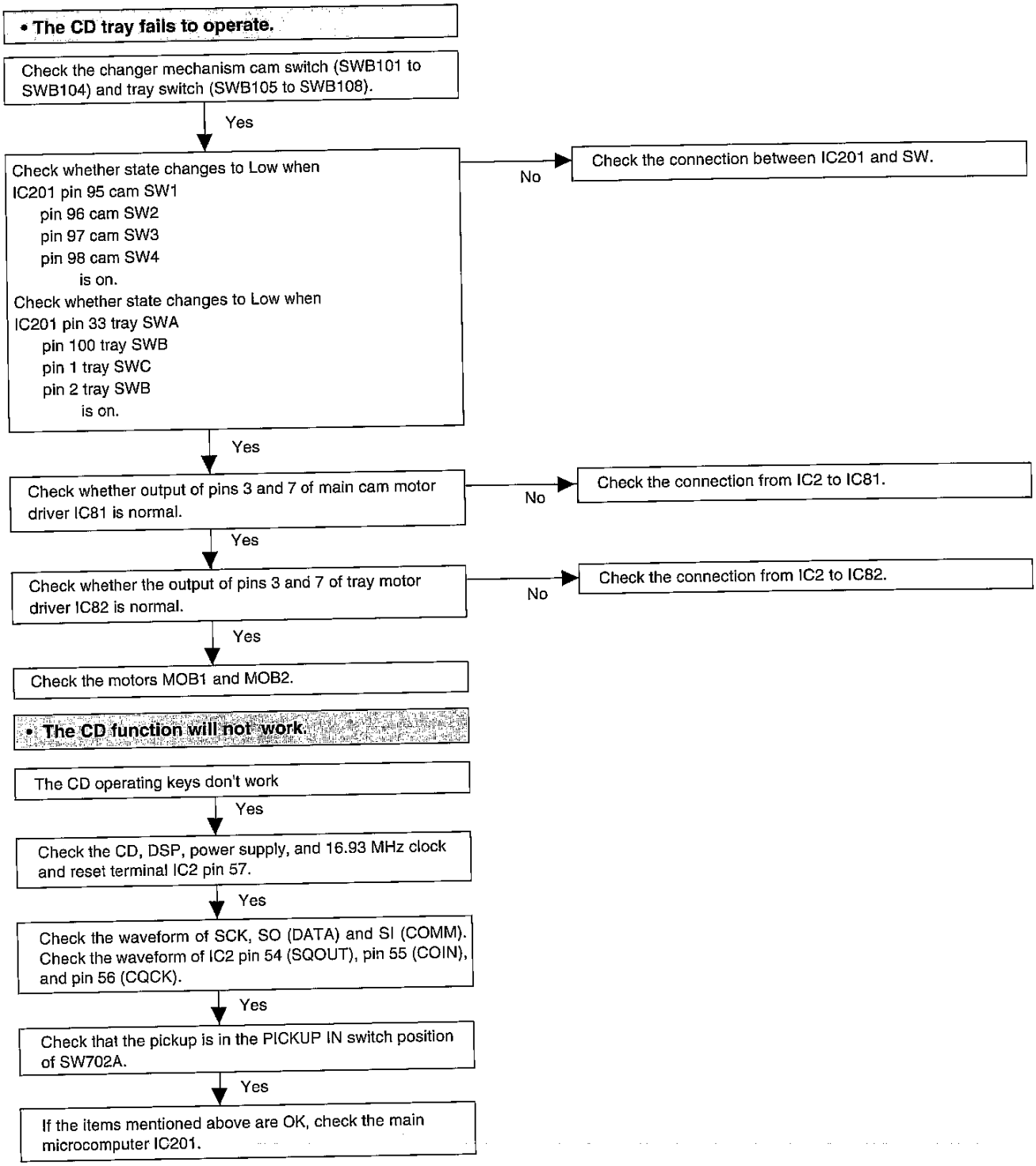
⓬ 0.5ms 100mV SLD

TROUBLESHOOTING

When the CD does not function

When the CD section does not operate When the objective lens of the optical pickup is dirty,this section may not operate.Clean the objective lens,and check the playback operation.When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC(Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.
Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.
Do not touch the lens with the bare hand.


• The CD tray fails to operate.
Check the changer mechanism cam switch (SWB101 to SWB104) and tray switch (SWB105 to SWB108).
Yes
Check whether state changes to Low when
IC201 pin 95 cam SW1
pin 96 cam SW2
pin 97 cam SW3
pin 98 cam SW4
is on.
Check whether state changes to Low when
IC201 pin 33 tray SWA
pin 100 tray SWB
pin 1 tray SWC
pin 2 tray SWB
is on.
No
Check the connection between IC201 and SW.
Yes
Check whether output of pins 3 and 7 of main cam motor driver IC81 is normal.
No
Check the connection from IC2 to IC81.
Yes
Check whether the output of pins 3 and 7 of tray motor driver IC82 is normal.
No
Check the connection from IC2 to IC82.
Yes
Check the motors MOB1 and MOB2.
• The CD function will not work.
The CD operating keys don't work
Yes
Check the CD, DSP, power supply, and 16.93 MHz clock and reset terminal IC2 pin 57.
Yes
Check the waveform of SCK, SO (DATA) and SI (COMM). Check the waveform of IC2 pin 54 (SQOUT), pin 55 (COIN), and pin 56 (CQCK).
Yes
Check that the pickup is in the PICKUP IN switch position of SW702A.
Yes
If the items mentioned above are OK, check the main microcomputer IC201.

○ The CD operation keys work.

Check the FOCUS-HF system.

Playback can be performed without a disc.

Yes

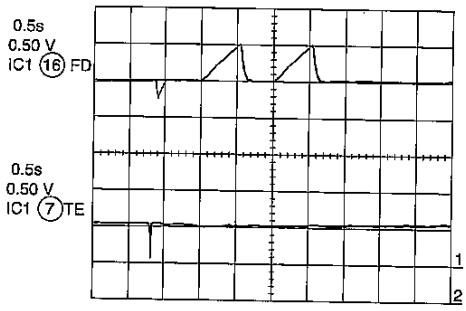
Does the pickup move up and down two twice? → No → Focus search OK

Yes

Does the output waveform of IC1 pin 16 (FD) match that shown in Figure 50-1? → No → Check the area around IC3 to CNP2.

Yes

Check 4 MHz of IC1 pin 50 (CLK) line and the microcomputer data of pin 51 (CL), pin 52 (DAT) and pin 53 (CE).



Focus search is performed two times when play operation is done without disc.

Figure 50-1

○ Playback can only be performed when disc is loaded.

Is the Focus servo active? (Can you hear it working?) → No → Check the laser diode driver. Check the area around IC1 pin 16 to pin 21 (focus servo circuit).

Yes

Does the DRF signal of IC1 pin 54 change from "L" to "H"? → No → If the disc is not turning, the DRF should not change to "H". → Yes → Check the spindle system.

Yes

Is HF waveform normal (see the Figure 50-2, Figure 50-3.)? → No → Level is abnormal → Yes → Check the periphery of IC1 pin 41 and pin 42.

Yes

Check the tracking system.

Waveform is unstable. → Yes → Check the spindle system.

HF
1.0V/DIV
0.5µsec/DIV(DC)
(When playing back the disc)

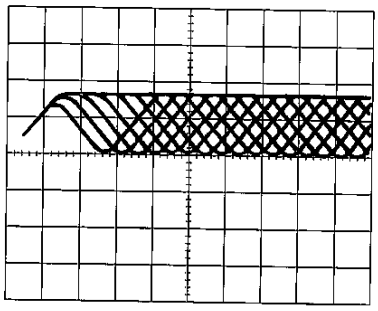
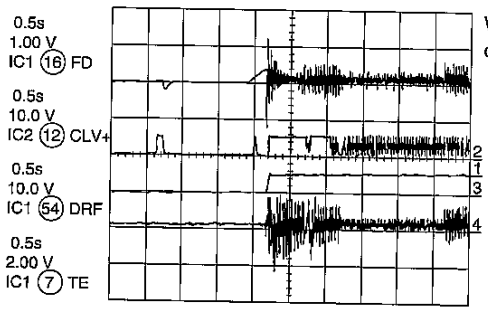


Figure 50-2



Waveform in case of normal play-back

Figure 50-3

• Check the tracking system.

Check the waveform of IC1 pin 7 (TE).

- The waveform shown in Figure 51-1 appears, and no disc state appears soon. → Yes → Tracking servo is inoperative. → Yes → Check the periphery of IC1 pin 8 to pin 15, and IC3 to CNP2.
- Playback is possible in TEST mode. → Yes → Playback is impossible although initialization is possible. → Yes → Normal jump is impeded, and the program top cannot be reached. → Yes → Check the periphery of IC1 pin 14.
- Data cannot be read. → Yes → Check the VCO-PLL system.

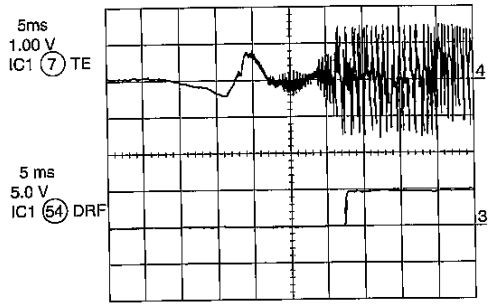


Figure 51-1

• Check the spindle system

Play operation is performed without disc.

Yes

The turntable rotates a little. → No → The spindle driver is normal.

Yes

The turntable fails to rotate or rotates at high speed. → No → Check the periphery of IC1 pin 23 to pin 27, pin 39, pin 40, IC2 pin 12, pin 13, from IC3 to CNP3.

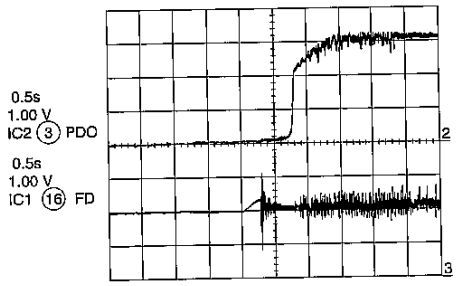
• Checking the VCO-PLL system

Play operation is performed when disc exists.

Yes

Although the HF waveform is normal, TOC data cannot be read. → No → Check the PDO waveform of IC2 pin 3. (Figure 51-2)

Abnormal → Check the IC1 pin 43, pin 44, IC2 pin 3, pin 5, pin 7, pin 10, and pin 11.



Stop -- > Play

As VCO frequency is locked at 4.32 MHz, voltage of PDO rises and stabilizes.

Figure 51-2

• Although HF waveform is normal and time indication is normal, no sound is not output.

Check the IC2 pin 48 (EFLG). → No → Usually, the number of pulses of flawless disc is 100 pulses/sec or less.

Yes

Check the IC2 pin 37 and pin 40.

Yes

Check IC501 and POWER AMP. IC901.

FUNCTION TABLE OF IC

IC1 VHiLA9241M/-1: Servo Amp., (LA9241M) (1/2)

Pin No.	Port Name	Function
1	FIN2	Connection pin for photodiode of pickup. RF signal is generated through addition with FIN pin, and FE signal is generated through subtraction.
2	FIN1	Connection pin for photodiode of pickup.
3	E	Connection pin for photodiode of pickup. TE signal is generated through subtraction with F pin.
4	F	Connection pin for photodiode of pickup.
5	TB	Pin for input of DC component of TE signal.
6	TE-	Pin to connect gain setting resistor of TE signal to TE signal.
7	TE	TE signal output pin.
8	TESI	TES (Track error sense) comparator input pin. TE signal is band-passed and input.
9	SCI	Input pin for shock detection.
10	TH	Pin to set time constant of tracking gain.
11*	TA	TA amplifier output pin.
12	TD-	Pin to compose tracking phase compensation constant between TD and VR pins.
13	TD	Pin to set tracking phase compensation.
14	JP	Pin to set amplitude of tracking jump signal (kick pulse).
15	TO	Tracking control signal output pin.
16	FD	Focusing control signal output pin.
17	FD-	Pin to compose focusing phase compensation constant between FD and FA pins.
18	FA	Pin to compose focusing phase compensation constant between FD-/FA-pins.
19	FA-	Pin to compose focusing phase compensation constant between FA and FE pins.
20	FE	Output pin of FE signal.
21	FE-	Pin to connect gain setting resistor of FE signal across TE pin.
22	AGND	GND for analog signal.
23	SP	Single end output for CV+ and CV- pin input.
24	SPI	Spindle amplifier input.
25	SPG	Pin to connect gain setting resistor in the 12cm mode of spindle.
26	SP-	Pin to connect spindle phase compensation constant together with SPD pin.
27	SPO	Spindle control signal output pin.
28	SLEO	Pin to connect thread phase compensation constant.
29	SLD	Thread control signal output pin.
30	SL-	Input pin of thread feed signal from micro computer.
31	SL+	Input pin of thread feed signal from micro computer.
32	JP-	Input pin of tracking jump signal from DSP.
33	JP+	Input pin of tracking jump signal from DSP.
34	TGL	Input pin of tracking gain control signal from DSP. TGL = Gain low at "H"
35	TOFF	Input pin of tracking off control signal from DSP. TOFF = Off at "H"
36	TES	Output pin of TES signal to DSP.
37	HFL	(HIGH FREQUENCY LEVEL) is used to judge whether main beam is positioned on the bit or on the mirror.
38	SLOF	Thread servo off control input pin.
39	CV-	Pin to input CLV error signal from DSP.
40	CV+	Pin to input CLV error signal from DSP.
41	RFSM	RF output pin.
42	RFS-	Pin to set gain of RF and set 3T compensation constant together with RFSM pin.
43	SLC	(SLICE LEVEL CONTROL) is the output pin to control of the level of the data slice with RF waveform DSP.
44	SLI	Input pin to control the level of data slice with DSP.
45	DGND	GND pin in the digital system.
46	FSC	Output pin for focus search smoothening capacitor.
47	TBC	(Tracking Balance Control) Pin to set EF balance variable range.
48*	NC	No connect.
49	DEF	Defect detection output pin of disk.
50	CLK	Reference clock input pin. 4.23MHz of DSP is input.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1 VHiLA9241M/-1: Servo Amp., (LA9241M) (2/2)

Pin No.	Port Name	Function
51	CL	Micro computer command clock input pin.
52	DAT	Micro computer command data input pin.
53	CE	Micro computer command chip enable input pin.
54	DRF	(DETECT RF) RF level detection output.
55	FSS	(Focus Serch Select) Pin to switch focus search mode. (± search/+ search for reference voltage)
56	VCC2	VCC pin for servo system and digital system.
57	REFI	Pin to connect pass control for reference voltage.
58	VR	Reference voltage output pin.
59	LF2	Pin to set defect detection time constant of disk.
60	PHI	Pin to connect capacitor for peak hold of RF signal.
61	BHI	Pin to connect capacitor for bottom hold of RF signal.
62	LDD	APC circuit output pin.
63	LDS	APC circuit output pin.
64	VCC1	RF system VCC pin.

IC1 VHiLA9241M/-1: Servo Amp., (LA9241M)

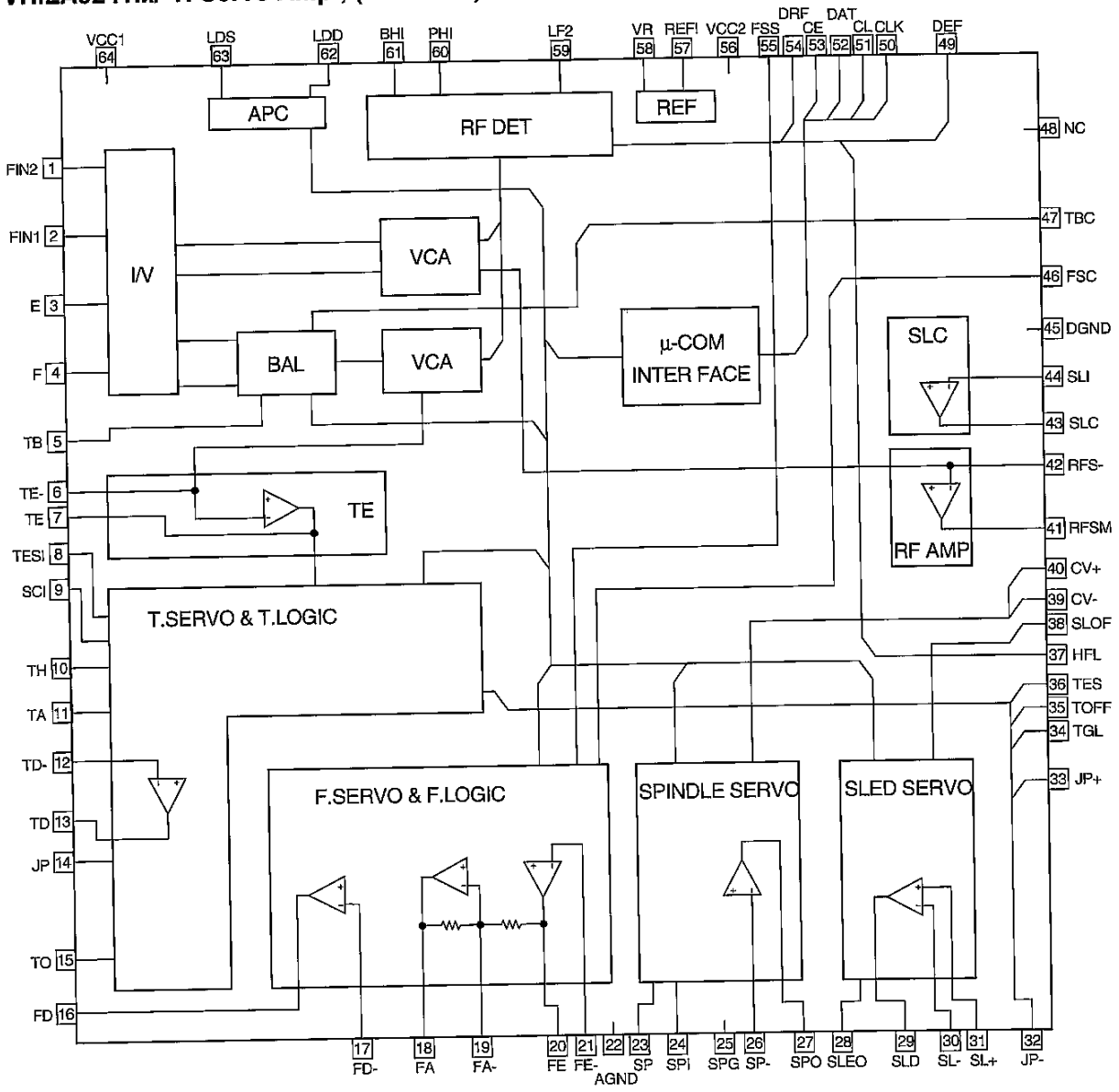


Figure 53 BLOCK DIAGRAM OF IC

IC2 VHiLC78622K-1: Servo/Signal Control (LC78622K) (1/2)

Pin No.	Terminal Name	Input/Output	Function	
1	DEFI	Input	Input terminal of defect detection signal (DEF). (Connected to OV when not used.)	
2	TA1	Input	For PLL	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.
3	PDO	Output		Output terminal of phase comparison for external VCO control.
4	VVSS	—		Ground terminal for integrated VCO. Surely connected to 0V.
5	ISET	Input		Resistance connection terminal for current adjustment of PDO output.
6	VVDD	—		Power terminal for integrated VCO.
7	FR	Input		VCO frequency range adjustment.
8	VSS	—	Ground terminal of digital system. Surely connected to 0V.	
9	EFMO	Output	For slice level control	EFM signal output terminal.
10	EFMIN	Input		EFM signal input terminal.
11	TEST2	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.	
12	CLV+	Outout	Output for disk motor control. 3 values can be output with the commands.	
13	CLV-	Output	Output for disk motor control. 3 values can be output with the commands.	
14	V/P	Output	Monitor output terminal for automatic switch of rough servo/phase control. "H" for rough servo, and "L" for phase servo.	
15	HFL	Intput	Input terminal of track detection signal. Schmit input.	
16	TES	Input	Input terminal of tracking error signal. Schmit input.	
17	TOFF	Output	Tracking OFF output terminal.	
18	TGL	Output	Output terminal for switch of tracking gain "L" increases the gain.	
19	JP+	Output	Output for track jump control. 3 values can be output with the commands.	
20	JP-	Output	Output for track jump control. 3 values can be output with the commands.	
21*	PCK	Output	Clock monitor terminal for EFM data replay. 4,3218MHz as the phase clock.	
22*	FSEQ	Output	Output terminal synchronous signal detection. "H" is output when synchronous signal detected by EFM signal matches synchronous signal internally generated.	
23	VDD	—	Power terminal of digital system.	
24	CONT1	Output	OPEN direction	
25	CONT2	Output	CLOSE direction	
26	CONT3	Output	Cam motor forward rotation	
27	CONT4	Output	Cam motor reverse rotation	
28	CONT5	Output	Cam motor speed selection High speed "L" Low speed "H"	
29*	EMPH	Output	Difference monitor terminal At "H", deemphasis disk is being replayed.	
30*	C2F	Output	C2 flag output terminal.	
31	DOUT	Output	Output terminal of digital OUTPUT. (EIAJ format)	
32*	TEST3	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.	
33	TEST4	Input	Input terminal for test. Pull-down resistor is integrated. Surely connected to 0V.	
34	PCCL	—	Terminal not use. Ground terminal.	
35*	MUTEL	Output	L channel 1 bit DAC	Mute output terminal for L channel.
36	LVDD	—		Power terminal for L channel.
37	LCHO	Output		L channel output terminal.
38	LVSS	—		Ground terminal for L channel Surely connected to 0V.
39	RVSS	—	R channel 1 bit DAC	Ground terminal for R channel Surely connected to 0V.
40	RCHO	Output		R channel output terminal.
41	RVDD	—		Power terminal for R channel.
42*	MUTER	Output		Mute output terminal for R channel.
43	XVDD	—	Power terminal for quartz oscillation.	
44	XOUT	Output	Ground terminal of 16.9344 MHz quartz oscillator.	
45	XIN	Input	Ground terminal of 16.9344 MHz quartz oscillator.	
46	XVSS	—	Ground terminal for quartz oscillation. Surely connected to 0V.	
47*	SBSY	Output	Output terminal of synchronous signal of subcode block.	
48*	EFLG	Output	Correction monitor terminal of C1, C2, single and double.	

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC2 VHiLC78622K-1: Servo/Signal Control (LC78622K) (2/2)

Pin No.	Terminal Name	Input/Output	Function
49*	PW	Output	Output terminal of subcodes P, A, R, S, T, U and W.
50*	SFSY	Output	Output terminal of synchronous signal of subcode frame. It drops when subcode stands by.
51	SBCK	Input	Clock input terminal to read subcode. Schmit input (Connected to 0V when not used.)
52*	FSX	Output	Output terminal of synchronous signal of 7.35kHz divided from quartz oscillation.
53	WRQ	Output	Output terminal to stand by output of subcode Q.
54	RWC	Input	Input terminal of read/write. Schmit input.
55	SQOUT	Output	Output terminal of subcode Q.
56	COIN	Input	Command input terminal from microcomputer.
57	$\overline{CQCK}$	Input	Clock input terminal to fetch command input, or pick up subcode from SQOUT. Schmit input
58	$\overline{RES}$	Input	Reset input terminal of LC78622. When turning on power, set it at "L".
59*	TST11	Output	Output terminal for test. Used in the open state ("L" output as ordinary).
60*	16M	Output	Output terminal of 16.9344Hz.
61	4M	Output	Output terminal of 4.2336MHz.
62	TEST5	Input	Input terminal for test Pull-down resistor is integrated. Surely connected to 0V.
63	$\overline{CS}$	Input	Chip selection input terminal. Pull-down resistor is integrated. Connected to 0when not controlled.
64	TEST1	Input	Input terminal for test Pull-down resistor is integrated. Surely connected to 0V.

Note: The same potential must be supplied to the power terminals (VDD, VVDD, LVDD, RVDD, XVDD).
In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC2 VHiLC78622K-1: Servo/Signal Control (LC78622K)

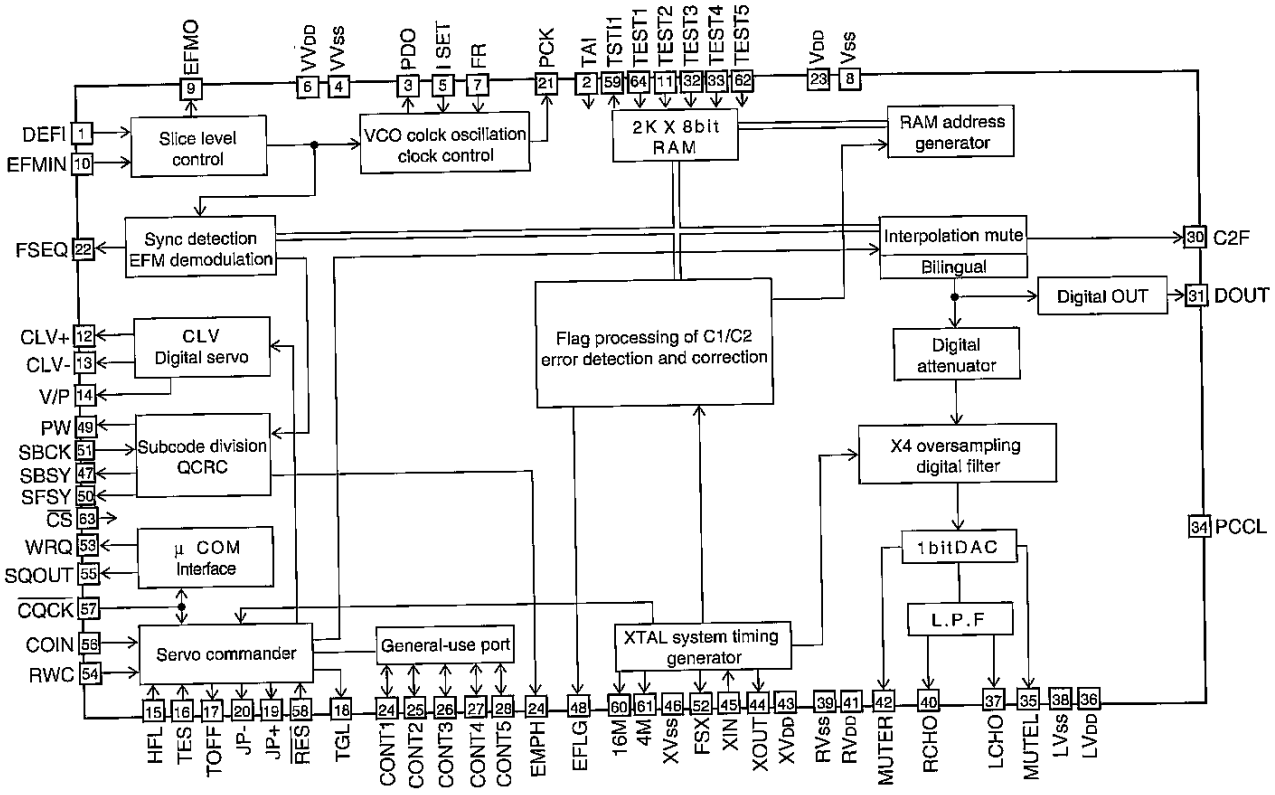


Figure 55 BLOCK DIAGRAM OF IC

IC201 RH-iX0210AWZZ: System Microcomputer (IX0210AW)(1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	P06	TRY_SW3	Input	CD Chenger mechanism tray position detection switch
2	P07	TRY_SW4	Input	CD Chenger mechanism tray position detection switch
3	SO0	COIN	Output	CD command
4	SI0	SQ_OUT	Input	CD Q code data
5	SCK0	CQCK	Output	CD seria clock
6	SO1	COM	Output	DISP microcomputer control line
7	SI1	DAT	Input	DISP microcomputer control line
8	SCK1	SCK	Output	DISP microcomputer control line
9	P16	STB	Output	DISP microcomputer control line
10	P17	DISP_RES	Output	DISP microcomputer control line
11	INT0	WRQ	Input	CD WRQ input
12	RES	RES	Input	Reset input
13	P74	DRF	Input	CD DRF input
14	P75	PU-IN SW	Input	CD PU-IN switch input
15	VSS1	VSS	—	Ground terminal
16	CF1	CF1	Input	Main clock 4.194304 MHz
17	CF2	CF2	Input	Main clock 4.194304 MHz
18	VDD1	VDD	—	Positive power supply
19	AN0	SP_63 Hz	Input	Input for spectrum analyzer 63 Hz
20	AN1	SP_250 Hz	Input	Input for spectrum analyzer 250 Hz
21	AN2	SP_1 kHz	Input	Input for spectrum analyzer 1 kHz
22	AN3	SP_4 kHz	Input	Input for spectrum analyzer 4 kHz
23	AN4	SP_16 KHZ	Input	Input for spectrum analyzer 16 KHz
24	AN5	POSISTOR	Input	Input for temperature detection
25	AN6	TUNER_SM	Input	For tuner input detection
26	AN7	SP_DET	Input	For speaker output detection
27	INT1	SYS_STOP	Input	Power failure detection input -> HOLD mode
28	INT2	SP PROTECT	Input	Speaker ovecurrent detection input -> PROTECT mode
29	INT3	INT3	Input	For outside break-in terminal
30	PA0	T2_B-FP SW	Input	Tape B-FP switch
31	PA1	T2_A-FP SW	Input	Tape A-FP switch
32	PA2	T2_CROM SW	Input	Tape T2 CrO_2 switch
33	PA3	T1_CROM SW	Input	Tape T1 CrO_2 switch
34	PA4	T2_RUN	Input	Tape T2 RUN pulse
35	PA5	T2_PLAY SW	Inputt	Tape T2 PLAY switch
36	PA6	VOL SW	Output	Voltage selection hold
37	PA7	MOTOR	Output	Tape motor output
38	PB0	T2_SOL	Output	For tape T2 solenoid drive
39	PB1	T1_SOL	Output	For tape T1 solenoid drive
40	PB2	T1_RUN	Input	Tape T1 RUN pulse
41	PB3	T1_PLAY SW	Input	Tape T1 PLAY switch
42	PB4	HI_SPEED	Output	Tape HIGH SPEED state "L" -> "H"
43	PB5	TA_BIAS	Output	Tape REC BIAS OSC
44	PB6	BEET_CANCEL	Output	Tape BIAS frequency selection; Usually "L"
45	PB7	TA_R/P	Output	Tepe PB/REC signal selection
46	PC0	TA_PB-EQ	Output	Tape playback side tape Equalizer selection NOR/CrO_2
47	PC1	REC-EQ	Output	Tape record Amp Equalizer selection signal NOR/CrO_2
48	PC2	REC_MUT	Output	Tape record muting output
49	PC3	TA_T1/T2	Output	Tape T1 = "H" T2 = "L"
50	PC4	—	Output	Not used
51	PC5	DOLBY-ON/OFF	Output	DOLBY mode control ON : H OFF : L
52	PC6	DOLBY-PB/REC	Output	DOLBY playback/record selection output RECORD : H PLAYBACK : L0

IC201 RH-iX0210AWZZ: System Microcomputer (IX0210AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
53	PC7	PB_MUT	Output	Tape playback muting output
54	PD0	SP_RELAY	Outout	For speaker relay drive
55	PD1	FUN_MOTOR	Output	For fan motor drive
56	VDD2	VDD	—	Positive power supply
57	VSS2	VSS	—	Ground terminal
58	PD2	TUNER_MUT	Output	Tuner muting output
59	PD3	SRS_PASS	Output	SRS control output PASS : H Otheres : L
60	PD4	SRS_3D/MONO	Output	SRS control output MONO : H Otheres : L
61	PD5	SRS_A	Output	SRS control output SRS 1, 4, 5 : H Otheres : L
62	PD6	SRS_B	Output	SRS control output SRS 2, 3, 5 : H Otheres : L
63	PD7	SRS_INH	Output	SRS control output SRS 3, 4, 5 : H Otheres : L
64	PE0	Q_A	Output	Q-SOUND control PASS mode : H Otheres : L
65	PE1	Q_B	Output	Q-SOUND control Q-Sound PASS mode : H Otheres : L
66	PE2	SPRED	Output	Q-SOUND control ENHANCDE mode : H Otheres : L
67	PE3	PL_ENA	Output	DOLBY PROLOGIC LV1035M control
68	PE4	C2B_CE	Output	Tuner/preamplifier C2B serial control input/output control output
69	PE5	C2B_CL	Output	Tuner/preamplifier C2B serial control clock output
70	PE6	TUN_SD	Input	Tuner signal detection input signal found : L
71	PE7	C2B_DI	Input	Tuner /preamplifier C2B serial control data input
72	PF0	C2B_DO	Output	Tuner /preamplifier C2B serial control data output
73	PF1	VOICE-CANCEL	Output	Karaoke function. "H": ON
74	PF2	LINE_MUT	Output	LINE out MUT signal
75	PF3	SYS_MUT	Output	Front Amp MUT signal
76	PF4	REAR_MUT	Output	Rear Amp MUT signal
77	PF5	CENTER_MUT	Output	Center Amp MUT signal
78	PF6	SWFE_MUT	Output	Super woofer Amp MUT signal
79	PF7	POWER	Output	Set power control, ON "H", "OFF"L"
80	PL6	9K/10K	Input	Span selection 9K "H" 10K "L"
81	PL5	MIC_DET	Input	MIC existence/nonexistence detection. Existence "L", Nonexistenece "H"
82	PL4	TUN_ST	Input	Ground connection by resistor
83	PL0	H/P SW	Input	H. P existence/nonexistence detection
84	PL1	AUT_SCAN	Input	Tuner AUT SCAN function provided/not provided
85	PL2	SRS_A/NA	Input	SURROUND SRS/Q-SOUND selection
86	PL3	DOL_A/NA	Input	Dolby Pro function provided/not provided
87	P30	CD_MUTE	Output	CD output MUT signal
88	P31	PCCL	Output	CD general-use port control signal
89	VSS3	VSS	—	Ground terminal
90	VDD3	VDD	—	Positivo power supply
91	P32	RES	Output	CD DSP RES signal
92	P33	SL-	Output	CD Sled motor -signal
93	P34	SL+	Output	CD Sled motor +signal
94	P35	RWC	Output	CD RWC
95	P00	CAM_SW1	Input	CD Changer mechanism cam detection switch
96	P01	CAM_SW2	Input	CD Changer mechanism cam detection switch
97	P02	CAM_SW3	Input	CD Changer mechanism cam detection switch
98	P03	CAM_SW4	Input	CD Changer mechanism cam detection switch
99	P04	TRY_SW1	Input	CD Chenger mechanism tray position detection switch
100	P05	TRY_SW2	Input	CD Chenger mechanism tray position detection switch

IC501 VHiLC75396N-1: Audio Processor (LC75396N)

Pin No.	Terminal Name	Function
1-3	RF1C1-RF1C3	Terminal to connect capacitor of filter configuration for equalizer F1 band Connect the capacitor between LF1C1(RF1C1) and LF1C2(RF1C2) between LF1C2 (RF1C2) and LF1C3(RF1C3).
4-6	RF2C1-RF2C3	Terminal to connect capacitor of filter configuration for equalizer F2 band Connect the capacitor between LF2C1(RF2C1) and LF2C2(RF2C2) between LF2C2 (RF2C2) and LF2C3(RF2C3).
7-9	RF3C1-RF3C3	Terminal to connect capacitor of filter configuration for equalizer F3 band Connect the capacitor between LF3C1(RF3C1) and LF3C2(RF3C2) between LF3C2 (RF3C2) and LF3C3(RF3C3).
10-12	RF4C1-RF4C3	Terminal to connect capacitor of filter configuration for equalizer F4 band Connect the capacitor between LF4C1(RF4C1) and LF4C2(RF4C2) between LF4C2 (RF4C2) and LF4C3(RF4C3).
13	RF5	Terminal to connect capacitor of filter configuration for equalizer F5 band Terminal to connect the externally provided capacitor
14	RTOUT	Equalizer output terminal
15	RFIN	Input terminal of R-ch front side 4dB step control
16	RFCOM	Common terminal of R-ch front side 1dB step control
17	RFOUT	Output terminal of R-ch front side control
18	RRIN	Input terminal of R-ch rear side 4dB step control
19	RRCOM	Common terminal of R-ch rear side 1dB step control
20	RROUT	Output terminal of R-ch rear side control
21	RVREF	Internal analog ground terminal
22	VREF	Connect the capacitor of about several 10 uF between Vref and AVSS (VSS) so as to prevent power supply ripple in the VDD/2 voltage generating section.
23	CL	Terminal to input serial data and clock for control
24	DI	Terminal to input serial data and clock for control
25	CE	Chip enable terminal. Data is written in the internal latch with a timing of changing H to L, and the specific analog switch is actuated. Data transfer is enabled on the H level.
26	VSS	GND
27	LVREF	Internal analog ground terminal
28	LROUT	Output terminal of L-ch rear side control
29	LRCOM	Common terminal of L-ch rear side 1dB step control
30	LRIN	Input terminal of L-ch rear side 4dB step control
31	LFOUT	Output terminal of L-ch front side control
32	LFCOM	Common terminal of L-ch front side 1dB step control
33	LFIN	Input terminal of L-ch front side 4dB step control
34	LTOUT	Equalizer output terminal
35	LF5	Terminal to connect capacitor of filter configuration for equalizer F5 band Terminal to connect the externally provided capacitor
36-38	LF4C3-LF4C1	Terminal to connect capacitor of filter configuration for equalizer F4 band Connect the capacitor between LF4C1(RF4C1) and LF4C2(RF4C2) between LF4C2 (RF4C2) and LF4C3(RF4C3).
39-41	LF3C3-LF3C1	Terminal to connect capacitor of filter configuration for equalizer F3 band Connect the capacitor between LF3C1(RF3C1) and LF3C2(RF3C2) between LF3C2 (RF3C2) and LF3C3(RF3C3).
42-44	LF2C3-LF2C1	Terminal to connect capacitor of filter configuration for equalizer F2 band Connect the capacitor between LF2C1(RF2C1) and LF2C2(RF2C2) between LF2C2 (RF2C2) and LF2C3(RF2C3).
45-47	LF1C3-LF1C1	Terminal to connect capacitor of filter configuration for equalizer F1 band Connect the capacitor between LF1C1(RF1C1) and LF1C2(RF1C2) between LF1C2 (RF1C2) and LF1C3(RF1C3).
48	LTIN	Equalizer input terminal
49	LSELO	Input selector output terminal
50	LINVIN1	Operational amplifier reverse input terminal for input gain setting
51-55	L5-L1	Input signal terminal
56	VDD	Power terminal
57-61	R1-R5	Input signal terminal
62	RINVIN1	Operational amplifier reverse input terminal for input gain setting
63	RSERO	Input selector output terminal
64	RTIN	Equalizer input terminal

IC701 RH-iX0209AWZZ: FL Driver & Controller (IX0209AW) (1/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
1	P16/BUZZ	DIP_STB	Input	Serial strobe input for system microcomputer
2	P17/PWM0	NC	Output	NC
3	P30	LED17	Output	LED output H Lights : R-PLAY ◄
4	P31	LED18	Output	LED output H Lights : PAUSE
5	P32	LED19	Output	LED output H Lights : DISC1
6	P33	LED20	Output	LED output H Lights : DISC2
7	P34	LED21	Output	LED output H Lights : DISC3
8	P35	LED22	Output	LED output H Lights : # (SHARP)
9	P36	LED23	Output	LED output H Lights : NATURAL
10	P37	LED24	Output	LED output H Lights : b (FLAT)
11	P70/INT0	FL_SET	Input	FL initial setting input
12	RES	DIP_RES	Input	Reset input
13	XT1/P74	VOL_UP	Input	Volume jog input UP
14	XT2/P75	VOL_DOW	Input	Volume jog input DOWN
15	Vss1	Vss	—	GND
16	CF1	CF_IN	Input	Main clock ceramic 4.19 MHz
17	CF2	CF_OUT	Output	Main clock ceramic 4.19 MHz
18	Vdd1	Vdd	—	Normal power supply
19	P80/AN0	DEST	Input	Initial setting input
20	P81/AN1	AU_SET	Input	Audio operation setting input
21	P82/AN2	KEY1	Input	Button input 0 to 9
22	P83/AN3	KEY2	Input	Button input 10 to 18
23	P84/AN4	KEY3	Input	Button input 19 to 27
24	P85/AN5	KEY4	Input	Button input 28 to 36
25	P86/AN6	KEY5	Input	Button input 37 to 45
26	P87/AN7	KEY6	Input	Button input 46 to 54
27	P71/INT1	MAL_UP	Input	Multi button jog input UP
28	P72/INT2/T0IN	MAL_DOW	Input	Multi button jog input DOWN
29	P73/INT3/T0IN	REM_IN	Input	Remote controller input
30	S0/T0	G15	Output	Display tube grid drive
31	S1/T1	G14	Output	Display tube grid drive
32	S2/T2	G13	Output	Display tube grid drive
33	S3/T3	G12	Output	Display tube grid drive
34	S4/T4	G12	Output	Display tube grid drive
35	S5/T5	G11	Output	Display tube grid drive
36	S6/T6	G10	Output	Display tube grid drive
37	S7/T7	G9	Output	Display tube grid drive
38	S8/T8	G8	Output	Display tube grid drive
39	S9/T9	G7	Output	Display tube grid drive
40	S10/T10	G6	Output	Display tube grid drive
41	S11/T11	G5	Output	Display tube grid drive
42	S12/T12	G4	Output	Display tube grid drive
43	S13/T13	G3	Output	Display tube grid drive
44	S14/T14	G2	Output	Display tube grid drive
45	S15/T15	G1	Output	Display tube grid drive
46	Vdd3	Vdd-F	—	Normal power supply for display tube drive
47	S16/PC0	S27	Output	Display tube segment drive
48	S17/PC1	S26	Output	Display tube segment drive
49	S18/PC2	S25	Outout	Display tube segment drive
50	S19/PC3	S24	Output	Display tube segment drive
51	VP	VP	—	Negative power supply -30 V for display tube drive

IC701 RH-iX0209AWZZ: FL Driver & Controller (IX0209AW) (2/2)

Pin No.	Port Name	Terminal Name	Input/Output	Function
52	S20/PC4	S23	Output	Display tube segment drive
53	S21/PC5	S22	Output	Display tube segment drive
54	S22/PC6	S21	Output	Display tube segment drive
55	S23/PC7	S20	Output	Display tube segment drive
56	S24/PD0	S19	Output	Display tube segment drive
57	S25/PD1	S18	Output	Display tube segment drive
58	S26/PD2	S17	Output	Display tube segment drive
59	S27/PD3	S16	Output	Display tube segment drive
60	S28/PD4	S15	Output	Display tube segment drive
61	S29/PD5	S14	Output	Display tube segment drive
62	S30/PD6	S13	Output	Display tube segment drive
63	S31/PD7	S12	Output	Display tube segment drive
64	S32/PE0	S11	Output	Display tube segment drive
65	S33/PE1	S10	Output	Display tube segment drive
66	S34/PE2	S9	Output	Display tube segment drive
67	S35/PE3	S8	Output	Display tube segment drive
68	S36/PE4	S7	Output	Display tube segment drive
69	S37/PE5	S6	Output	Display tube segment drive
70	S38/PE6	S5	Output	Display tube segment drive
71	S39/PE7	S4	Output	Display tube segment drive
72	Vdd4	Vdd-F	—	Normal proper supply for display tube drive
73	S40/PF0	S3	Output	Display tube segment drive
74	S41/PF1	S2	Output	Display tube segment drive
75	S42/PF2	S1	Output	Display tube segment drive
76	S43/PF3	—	Output	NC
77	S44/PF4	LED1	Output	LED output H Lights : Not defined
78	S45/PF5	LED2	Output	LED output H Lights : Not defined
79	S46/PF6	LED3	Output	LED output H Lights : F-PLAY ▶
80	S47/PF7	LED4	Output	LED output H Lights : STOP ■
81	S48/PG0	LED5	Output	LED output H Lights : FF ▶▶
82	S49/PG1	LED6	Output	LED output H Lights : REW ◀◀
83	S50/PG2	LED7	Output	LED output H Lights : SRS-G
84	S51/PG3	LED8	Output	LED output H Lights : SRS-R
85	P00	LED9	Output	LED output H Lights : VIRTUAL-G
86	P01	LED10	Output	LED output H Lights : VIRTUAL-R
87	P02	LED11	Output	LED output H Lights : PHANTOM-G
88	P03	LED12	Output	LED output H Lights : PHANTOM-R
89	Vss2	Vss	—	GND
90	Vdd2	Vdd	—	Normal power supply
91	P04	LED13	Output	LED output H Lights : NORMAL-G
92	P05	LED14	Output	LED output H Lights : NORMAL-R
93	P06	LED15	Output	LED output H Lights : STEREO-G
94	P07	LED16	Output	LED output H Lights : STEREO-R
95	P10/S00	DIP_KET	Output	Serial data output for system microcomputer
96	P11/S10/SB0	DIP_DAT	Input	Serial data input for system microcomputer
97	P12/SKC0	DIP_SCK	Input	Serial clock input for system microcomputer
98	P13/S01	NC	Output	NC
99	P14/S11/SB1	NC	Output	NC
100	P15/CK1	NC	Outout	NC

ICT21 VHiLC72720/-1: RDS Microcomputer (LC72720)

Pin No.	Terminal Name	Input/Output	Function
1	VREF	Output	Reference voltage output (Vdda/2)
2	MPXIN	Input	Base band (multiplex) signal input
3	Vdda	—	Analog system power supply (+5V)
4	Vssa	—	Analog system ground
5	FLOUT	Output	Sub-carrier input (comparator input)
6	CIN	Input	Sub-carrier output (filter output)
7	T1	Input	Test input (to be always connected to ground)
8	T2	Input	Test input (standby control) 0: Normal operation/1: Standby state (crystal oscillation stop)
9*	T3 (RDCL)	Input/Output	Test I/O (RDS clock output)
10*	T4 (RDDA)	Input/Output	Test I/O (RDS data output)
11 *	T5 (RSFT)	Input/Output	Test I/O (Soft judgment control data output)
12	XOUT	Output	Crystal oscillation output
13	XIN	Input	Crystal oscillation input (external reference signal input)
14	Vddd	—	Digital system power supply
15	Vssd	—	Digital system ground
16*	T6 (ERROR/57K/BE1)	Input/Output	Test I/O (Error existence/nonexistence output/playback carrier output/error block number output)
17*	T7 (CORREC/ARI-ID/BE0	Input/Output	Test I/O (Error existence/nonexistence output/SK detection output/error block number output)
18*	SYNC	Input/Output	Block sync detection output
19*	RDS-ID	Output	RDS detection output
20	DO	Output	Data output — Serial data interface (CCB)
21	CL	Input	Clock input — Serial data interface (CCB)
22	DI	Input	Data input — Serial data interface (CCB)
23	CE	Input	Chip enable — Serial data interface (CCB)
24	SYR	Input	Sync and RAM address reset (positive logic)

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

ICT21 VHiLC72720/-1: RDS Microcomputer (LC72720)

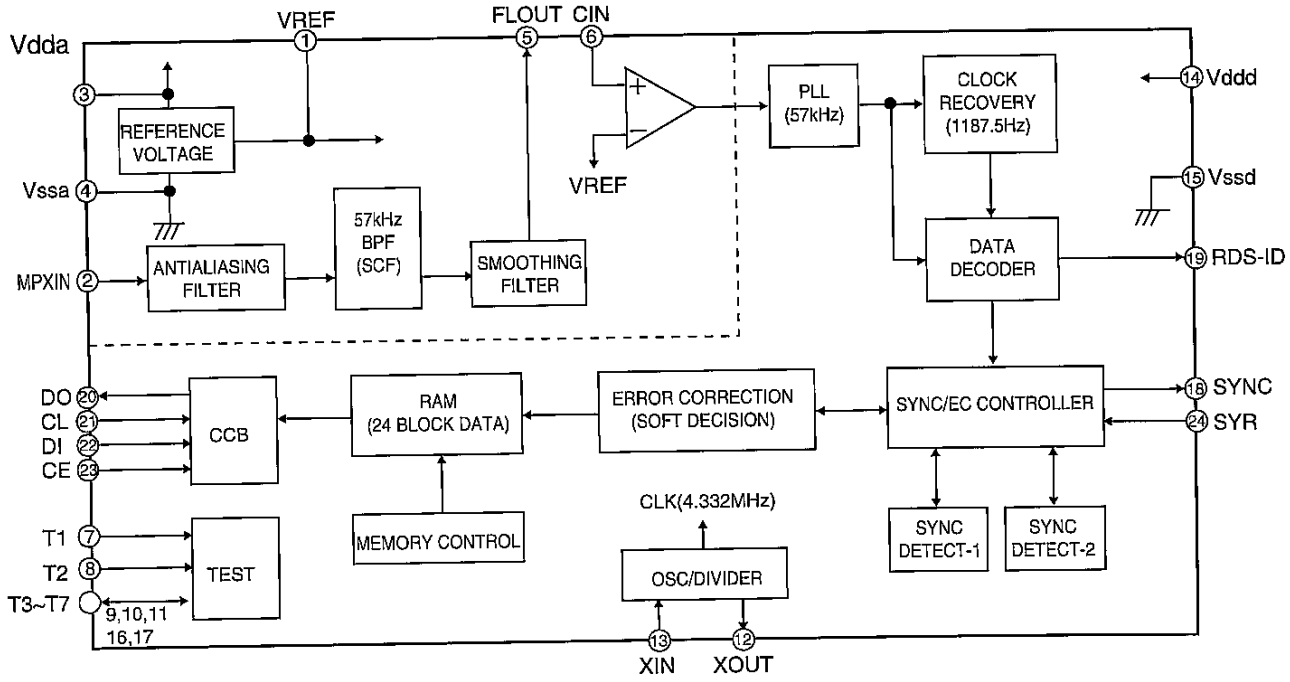
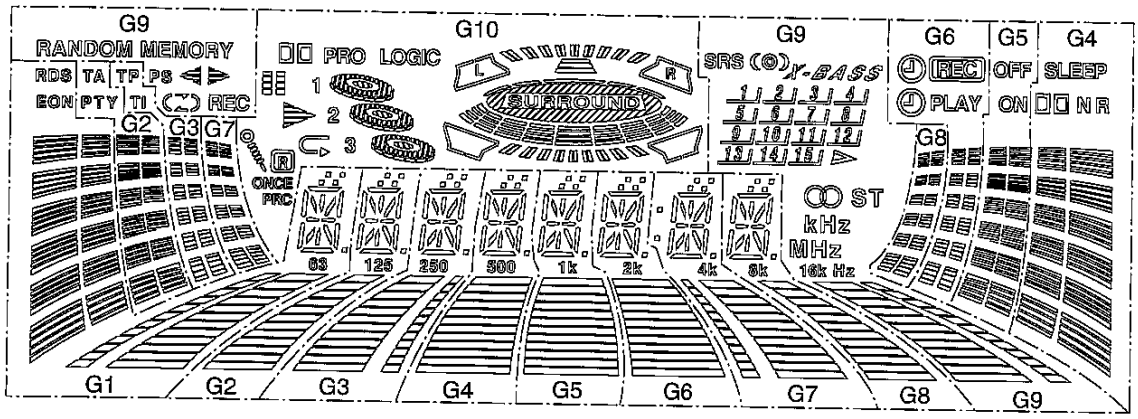
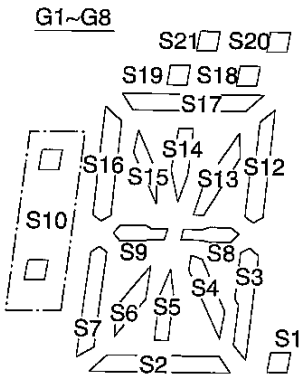
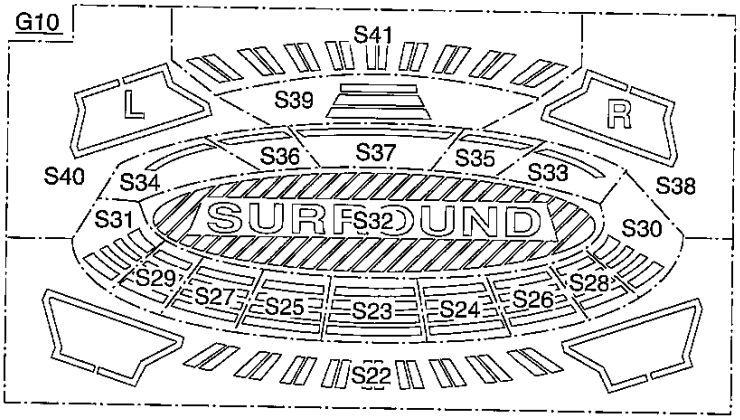


Figure 61 BLOCK DIAGRAM OF IC

FL701 VVKCK1627M/-1







	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10
S0	S0	S0	S0	S0	S0	S0	S0	S0	S0	
S1	S1	S1	S1	S1	S1	S1	S1	S1	☾	PBC
S2	S2	S2	S2	S2	S2	S2	S2	S2	≂	ONCE
S3	S3	S3	S3	S3	S3	S3	S3	S3	☽	
S4	S4	S4	S4	S4	S4	S4	S4	S4	REC	R
S5	S5	S5	S5	S5	S5	S5	S5	S5	PS	
S6	S6	S6	S6	S6	S6	S6	S6	S6	◁	
S7	S7	S7	S7	S7	S7	S7	S7	S7	▷	▷
S8	S8	S8	S8	S8	S8	S8	S8	S8	MEMORY	1
S9	S9	S9	S9	S9	S9	S9	S9	S9	RANDOM	2
S10	EON	PTY	TI	NR	ON	PLAY	S10		SRS	3
S11	RDS	TA	TP	SLEEP	OFF	REC				
S12	S12	S12	S12	S12	S12	S12	S12	S12		(1)
S13	S13	S13	S13	S13	S13	S13	S13	S13	X-BASS	(1)
S14	S14	S14	S14	S14	S14	S14	S14	S14	1	(1)
S15	S15	S15	S15	S15	S15	S15	S15	S15	2	(2)
S16	S16	S16	S16	S16	S16	S16	S16	S16	3	(2)
S17	S17	S17	S17	S17	S17	S17	S17	S17	4	(2)
S18	S18	S18	S18	S18	S18	S18	S18	S18	MHz	(3)
S19	S19	S19	S19	S19	S19	S19	S19	S19	kHz	(3)
S20	S20	S20	S20	S20	S20	S20	S20	S20		(3)

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10
S21	S21	S21	S21	S21	S21	S21	S21	S21	ST	S21
S22	S22	S22	S22	S22	S22	S22	S22	S22	5	S22
S23	S23	S23	S23	S23	S23	S23	S23	S23	▷	S23
S24	S24	S24	S24	S24	S24	S24	S24	S24	15	S24
S25	S25	S25	S25	S25	S25	S25	S25	S25	14	S25
S26	S26	S26	S26	S26	S26	S26	S26	S26	13	S26
S27	S27	S27	S27	S27	S27	S27	S27	S27	12	S27
S28	S28	S28	S28	S28	S28	S28	S28	S28	11	S28
S29	S29	S29	S29	S29	S29	S29	S29	S29	10	S29
S30	S30	S30	S30	S30	S30	S30	S30	S30	9	S30
S31	S31	S31	S31	S31	S31	S31	S31	S31	8	S31
S32	S32	S32	S32	S32	S32	S32	S32	S32	7	S32
S33	S33	S33	S33	S33	S33	S33	S33	S33	6	S33
S34	S34	S34	S34	S34	S34	S34	S34	S34	S34	S34
S35	S35	S35	S35	S35	S35	S35	S35	S35	S35	S35
S36	S36	S36	S36	S36	S36	S36	S36	S36	S36	S36
S37	S37	S37	S37	S37	S37	S37	S37	S37	S37	S37
S38	S38	S38	S38	S38	S38	S38	S38	S38	S38	S38
S39	S39	S39	S39	S39	S39	S39	S39	S39	S39	S39
S40	S40	S40	S40	S40	S40	S40	S40	S40	S40	S40
S41	S41	S41	S41	S41	S41	S41	S41	S41	S41	S41

PIN ASSIGNMENT

Pin No.	1~3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Assignment	F1	NP	NL	H	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	S0	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15

Pin No.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62~64
Assignment	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38	S39	S40	S41	D	NL	NP	F2

Figure 62 FL SEGMENT

SHARP PARTS GUIDE

MODEL CD-C3H
CP-C3H

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. No.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC ..... Ceramic type
VCK..... Ceramic type
VCT..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN..... Cylindrical type (without lead wire)
VC • • TV..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN..... Cylindrical type (without lead wire)
VR • • TV..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

NO.	PART CODE	★	PRICE RANK	DESCRIPTION

CD-C3H

INTEGRATED CIRCUITS

IC1	VHILA9241M/-1	J	AS	Servo Amp.,LA9241M
IC2	VHILC78622K-1	J	AY	Servo/Signal Control,LC78622K
IC3	VHIM56748FP-1	J	AR	Focus/Tracking/Spin/Slide Driver,M56748FP
IC81	VHITA7291S/-1	J	AH	Main Cam Motor Driver, TA7291S
IC82	VHITA7291S/-1	J	AH	Tray Motor Driver, TA7291S
IC101	VHIAN7345K/-1	J	AM	Playback and Record/ Playback Amp.,AN7345K
IC201	RH-IX0210AWZZ	J	AZ	System Microcomputer, IX0210AW
IC302	VHILC72131/-1	J	AP	PLL Controller,LC72131
IC303	VHILA1832//-1	J	AR	FM IF Det./FM Mpx./ AM IF, LA1832
IC451	VHISRS5250AS1	J	AZ	SRS,SRS5250AS1
IC452	VHIBU4066BC-1	J	AG	SRS Mode Selector,BU4066BC
IC501	VHILC75396N-1	J	AX	Audio Processor,LC75396N
IC502~504	VHINJM4558D-1	J	AH	Ope Amp.,NJM4558D
IC701	RH-IX0209AWZZ	J	BA	FL Driver & Controller,IX0209AW
IC901	VHISTK41710-1	J	BK	Power Amp.,STK41710
ICD01	VHIHA12134AF1	J	AK	Dolby NR,HA12134AF
ICD03	VHIBA3311L/-1	J	AK	REC./P.B.Equalizer Amp., BA3311L
ICP01	VHINJM4565M-1	J	AC	Buffer Amp.,NJM4565M
ICS01	VHILV1035M/-1	J	BC	Dolby Pro Logic Decorder, LV1035M
ICS02	VHIQS7777PF-1	J	BC	Q-Sound Decorder,QS7777PF
ICS03	VHINJM4565M-1	J	AC	Pro Logic Amp.,NJM4565M
ICT01,02	VHINJM4558MF-	J	AE	Line Amp.,NJM4558MF
ICT21	VHILC72720/-1	J	AW	RDS,Microcomputer,LC72720

TRANSISTORS

Q1	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q51	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q52	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q101,102	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q103~106	VS2SC1845F/-1	J	AC	Silicon,NPN,2SC1845F
Q107,108	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q109	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q110,111	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q113,114	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q119	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q121,122	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q124,125	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q126,127	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q128	VS2SC2236-Y-1	J	AB	Silicon,NPN,2SC2236 Y
Q131,132	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q139~144	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q146	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
Q147~150	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q153,154	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q156	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q201	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q202,203	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q204	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q206	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q301	VS2SC380-0/-1	J	AB	Silicon,NPN,2SC380 O
Q302~304	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q353,354	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q360	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q361	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q362	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q371	VSKTA1266GR-1	J	AB	Digital,NPN,KTA1266 GR
Q451	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q452	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q458~460	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q461	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
Q463,464	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q465~467	VS2SK246GR/-1	J	AB	FET,2SK246 GR
Q501,502	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q702~715	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q716~723	VSKTA1504Y/-1	J	AB	Silicon,PNP,KTA1504 Y
Q820	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q821	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q822	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q823	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q824	VS2SD2012//-1	J	AD	Silicon,NPN,2SD2012
Q825	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q826	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
Q827	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q828	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q851	VS2SB1375//-1	J	AF	Silicon,PNP,2SB1375
Q903,904	VSKTC3200GR-1	J	AC	Silicon,NPN,KTC3200 GR
Q994	VSKTA1270Y/-1	J	AD	Silicon,PNP,KTA1270 Y
Q995	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q997~999	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QD01,02	VS2SC2878A/-1	J	AE	Silicon,NPN,2SC2878 A
QD03	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QD06	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
QD07~10	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QM01	VS2SK246GR/-1	J	AB	FET,2SK246 GR
QM02	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
QM03,04	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
QM08	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
QM20~22	VSKRC104M//-1	J	AC	Digital,NPN,KRC104 M
QP01,02	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QP03,04	VS2SC2878A/-1	J	AE	Silicon,NPN,2SC2878 A
QP07,08	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QS01	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
QT01,02	VS2SC2878A/-1	J	AE	Silicon,NPN,2SC2878 A
QT03,04	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QT05	VS2SC2878A/-1	J	AE	Silicon,NPN,2SC2878 A
QT06	VSKRA107M//-1	J	AE	Digital,PNP,KRA107 M
QT21	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR

DIODES

D1	VHD1SS133//-1	J	AA	Silicon,1SS133
D2~4	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D51	VHD1SS133//-1	J	AA	Silicon,1SS133
D81,82	VHD1SS133//-1	J	AA	Silicon,1SS133
D101~104	VHD1SS133//-1	J	AA	Silicon,1SS133
D202~205	VHD1SS133//-1	J	AA	Silicon,1SS133
D301~304	VHD1SS133//-1	J	AA	Silicon,1SS133
D351~353	VHD1SS133//-1	J	AA	Silicon,1SS133
D401~403	VHD1SS133//-1	J	AA	Silicon,1SS133
D501,502	VHD1SS133//-1	J	AA	Silicon,1SS133
D552~557	VHD1SS133//-1	J	AA	Silicon,1SS133
D701	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D702	VHD1SS133//-1	J	AA	Silicon,1SS133
D823	VHD1SS133//-1	J	AA	Silicon,1SS133
D826,827	VHD1SS133//-1	J	AA	Silicon,1SS133
D829	VHD1SS133//-1	J	AA	Silicon,1SS133
⚠ D850	VHDS4VB20//-1	J	AG	Rectifier,S4VB20
⚠ D851	VHDBR102J02-1	J	AM	Silicon,BR102J02
D852~855	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D858~861	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D870	VHD1SS133//-1	J	AA	Silicon,1SS133
D901,902	VHD1SS133//-1	J	AA	Silicon,1SS133
D905,906	VHD1N5402M/-1	J	AE	Silicon,1N5402M
D907,908	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D909~912	VHD1SS133//-1	J	AA	Silicon,1SS133
D993	VHD1SS133//-1	J	AA	Silicon,1SS133
D995~999	VHD1SS133//-1	J	AA	Silicon,1SS133
DD01,02	VHD1SS133//-1	J	AA	Silicon,1SS133
DM01~03	VHD1SS133//-1	J	AA	Silicon,1SS133
DS01~04	VHD1SS133//-1	J	AA	Silicon,1SS133
DS05,06	VHD1N4004S/-1	J	AB	Silicon,1N4004S
DT01,02	VHD1SS133//-1	J	AA	Silicon,1SS133
LED701~707	VHP333GTH4/-1	J	AC	LED,Green,333GTH4
LED708	VHP333GTH2/-1	J	AD	LED,Green,333GTH2
LED709	VHP333GTH4/-1	J	AC	LED,Green,333GTH4
LED710~713	VHP333YTH2/-1	J	AD	LED,Orange,333YTH2
LED714,715	VHP333GTH2/-1	J	AD	LED,Green,333GTH2
LED716~718	VHP333GTH4/-1	J	AC	LED,Green,333GTH4
LED719,720	VHP333YTH2/-1	J	AD	LED,Orange,333YTH2
LED721~724	VHPSPR325MV-1	J	AF	LED,Red,SPR325MV
LED725	VHP333GTH2/-1	J	AD	LED,Green,333GTH2
LED726	VHP333GTH4/-1	J	AC	LED,Green,333GTH4
VD301	VHCKV1236Z23F	J	AS	Variable Capacitance, KV1236Z23F
ZD61	VHEMTZJ4R7B-1	J	AB	Zener,4.7V,MTZJ4.7B
ZD201	VHEMTZJ3R3A-1	J	AB	Zener,3.3V,MTZJ3.3A
ZD351	VHEMTZJ4R7B-1	J	AB	Zener,4.7V,MTZJ4.7B
ZD352	VHEMTZJ3R9B-1	J	AC	Zener,3.9V,MTZJ3.9B
ZD451,452	VHEMTZJ8R2C-1	J	AB	Zener,8.2V,MTZJ8.2C
ZD550	VHEMTZJ5R6A-1	J	AC	Zener,5.6V,MTZJ5.6A
ZD820	VHEMTZJ130B-1	J	AC	Zener,13V,MTZJ13B

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
ZD821	VHEMTZJ5R6A-1	J	AC	Zener,5.6V,MTZJ5.6A
ZD822	VHEMTZJ8R2C-1	J	AB	Zener,8.2V,MTZJ8.2C
ZD851	VHEMTZJ300C-1	J	AC	Zener,30V,MTZJ30C
ZD852	VHEMTZJ4R7B-1	J	AB	Zener,4.7V,MTZJ4.7B
ZD853	VHEMTZJ8R2C-1	J	AB	Zener,8.2V,MTZJ8.2C
ZD854	VHEMTZJ4R7B-1	J	AB	Zener,4.7V,MTZJ4.7B
ZD901	VHEMTZJ130B-1	J	AC	Zener,13V,MTZJ13B
ZD903,904	VHEMTZJ8R2C-1	J	AB	Zener,8.2V,MTZJ8.2C
ZD998	VHEMTZJ5R1B-1	J	AC	Zener,4.3V,MTZJ5.1B
ZD999	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B
ZDS01	VHEMTZJ5R1B-1	J	AC	Zener,5.1V,MTZJ5.1B
ZDT21	VHEMTZJ4R3B-1	J	AC	Zener,4.3V,MTZJ4.3B

FILTERS

CF301,302	RFILF0072AFZZ	J	AG	FM IF
CF351	RFILF0003AWZZ	J	AK	FM IF
CF352	RFILA0009AWZZ	J	AE	AM IF

TRANSFORMERS

T301	RCILA1074AFZZ	J	AD	LW Antenna
T302	RCILA1064AFZZ	J	AD	MW Antenna
T305	RCILB1073AWZZ	J	AC	LW Oscillation
T306	RCILB1074AFZZ	J	AC	MW Oscillation
T351	RCILI0011AWZZ	J	AD	AM IF
⚠T851	RTRNP0187AWZZ	J	BQ	Power

COILS

L61	VP-XHR82K0000	J	AC	0.82 µH
L95	VP-XH2R2K0000	J	AB	2.2 µH,Choke
L102,103	RCILC0094AFZZ	J	AD	6.8 mH
L104	VP-MK331K0000	J	AB	330 µH,Choke
L105,106	VP-XH2R2K0000	J	AB	2.2 µH,Choke
L201	VP-DH2R2M0000	J	AB	2.2 µH,Choke
L251,252	RCILL0105AFZZ	J	AE	MPX. Filter
L341	RBLN-0001AWZZ	J	AD	Balun
L342	VP-DH2R2K0000	J	AB	2.2 mH,Packing
L351,352	VP-DH101K0000	J	AB	100 µH,Choke
L353	VP-DH102K0000	J	AB	1 mH,Choke
L354	RFILL0001AWZZ	J	AE	Low Pass Filter
L701	VP-CH2R2M0000	J	AB	2.2 µH
L851	VP-DH101K0000	J	AB	100 µH,Choke
L901,902	RCILZ0137AFZZ	J	AA	0.29 µH
L903	VP-XH2R2K0000	J	AB	2.2 µH,Choke
L911,912	RCILZ0137AFZZ	J	AA	0.29 µH
LD01,02	RCILC0094AFZZ	J	AD	6.8 mH
LT21,22	VP-XH2R2K0000	J	AB	2.2 µ ,Choke

VARIABLE RESISTORS

VR101	RVR-M0028AWZZ	J	AC	22 kohms (B),Semi-VR [L-CH Bias Current]
VR102	RVR-M0028AWZZ	J	AC	22 kohms (B),Semi-VR [R-CH Bias Current]
VR151	RVR-M0030AWZZ	J	AC	47 kohms (B),Semi-VR [L-CH Rec/Play Sens.]
VR152	RVR-M0030AWZZ	J	AC	47 kohms (B),Semi-VR [R-CH Rec/Play Sens.]
VR351	RVR-M0026AWZZ	J	AC	10 kohm (B),Semi-VR [FM Mute Level]
VRD01	RVR-M0028AWZZ	J	AC	22 kohms (B),Semi-VR [Tape 1 Play L-CH Sens.]
VRD02	RVR-M0028AWZZ	J	AC	22 kohms (B),Semi-VR [Tape 1 Play R-CH Sens.]
VRD03	RVR-M0028AWZZ	J	AC	22 kohms (B),Semi-VR [Tape 2 Play L-CH Sens.]
VRD04	RVR-M0028AWZZ	J	AC	22 kohms (B),Semi-VR [Tape 2 Play R-CH Sens.]
VRM01	RVR-M0030AWZZ	J	AC	47 kohms (B),Semi-VR [Tape Speed]

VIBRATORS

X201	RCRSP0003AWZZ	J	AH	Crystal,4.19MHz
X351	92LCRSTL1425A	J	AF	Crystal,456 kHz
X352	RCRSP0002AWZZ	J	AH	Crystal,4.5 MHz
X701	RCRM-0031AWZZ	J	AE	Ceramic,4.19 MHz
XL1	RCRSP0005AWZZ	J	AF	Crystal,16.934 MHz
XLS01	RCRM-0173AFZZ	J	AE	Ceramic,8 MHz
XT21	RCRSB0030AWZZ	J	AH	Crystal,4.332 MHz

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION

CAPACITORS

C1	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C2	VCTYMN1CY103K	J	AA	0.01 µF,16V
C3	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C4	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C5,6	VCTYPA1CX333K	J	AA	0.033 µF,16V
C7	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C8	VCTYPA1CX683K	J	AA	0.068 µF,16V
C9	VCTYPA1CX473K	J	AA	0.047 µF,16V
C10	VCKYMN1HB181K	J	AA	180 pF,50V
C11,12	VCTYPA1CX104K	J	AB	0.1 µF,16V
C13	VCKYMN1HB331K	J	AA	330 pF,50V
C14	VCTYMN1CY103K	J	AA	0.01 µF,16V
C16	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C17	VCKYMN1HB102K	J	AA	0.001 µF,50V
C18	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C19	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C20	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C21	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C22	VCCSPA1HL221J	J	AA	220 pF,50V
C23	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C24	VCCSMN1HL2R2C	J	AB	2.2 pF,50V
C25	VCCSMN1HL270J	J	AA	27 pF,50V
C26	VCTYPA1CX333K	J	AA	0.033 µF,16V
C27	VCKYMN1HB102K	J	AA	0.001 µF,50V
C28	VCTYPA1CX104K	J	AB	0.1 µF,16V
C29	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C30	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C31	VCEAZA0JW227M	J	AC	220 µF,6.3V,Electrolytic
C32	VCTYMN1CY103K	J	AA	0.01 µF,16V
C33	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C34	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
C35	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C36	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C37	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C38	VCTYMN1CY103N	J	AA	0.01 µF,16V
C39,40	VCTYPA1CX473K	J	AA	0.047 µF,16V
C41	VCCCBT1HH120J	J	AA	12 pF (CH),50V
C42	VCCCBT1HH150J	J	AA	15 pF (CH),50V
C43	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C44~49	VCKYMN1HB101K	J	AA	100 pF,50V
C51,52	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C53	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C54	VCKYMN1HB102K	J	AA	0.001 µF,50V
C55	RC-EZ0004AWZZ	J	AD	100 µF,10V,Electrolytic
C56	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C57	VCKYBT1HB102K	J	AA	0.001 µF,50V
C71,72	RC-EZ0004AWZZ	J	AD	100 µF,10V,Electrolytic
C80	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C81,82	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C83	VCKYMN1HB102K	J	AA	0.001 µF,50V
C85	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C86,87	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C95	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C96	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C101~104	VCKYMN1HB271K	J	AA	270 pF,50V
C105,106	VCKYMN1HB331K	J	AA	330 pF,50V
C107,108	VCKYMN1HB561K	J	AA	560 pF,50V
C109	VCKYPA1HF223Z	J	AB	0.022 µF,50V
C111~114	VCKYMN1HB331K	J	AA	330 pF,50V
C115,116	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C117,118	VCTYPA1CX333K	J	AA	0.033 µF,16V
C119,120	VCKYMN1HB561K	J	AA	560 pF,50V
C121,122	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C123,124	VCTYPA1CX123K	J	AA	0.012 µF,16V
C125,126	VCTYPA1CX103K	J	AA	0.01 µF,16V
C127	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C128	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C131,132	VCKYMN1HB271K	J	AA	270 pF,50V
C133,134	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C139,140	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C141,142	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C145	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C146	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C147	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C148	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C150	VCQPKA2AA822J	J	AA	0.0082 µF,100V,Polypropylene
C151	VCQYKA1HM393J	J	AB	0.039 µF,50V,Mylar
C152	VCEAZA1AW227M	J	AC	220 µF,10V,Electrolytic
C161	VCKYMN1HB561K	J	AA	560 pF,50V
C162	VCQYKA1HM473J	J	AB	0.047 µF,50V,Mylar

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C167,168	VCTYPA1CX103K	J	AA	0.01 µF,16V
C175,176	VCTYMN1CX562K	J	AA	0.0056 µF,16V
C177,178	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C179,180	VCTYPA1EX822K	J	AA	0.0082 µF,25V
C181,182	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C183	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C184	VCEAZA1HW475M	J	AB	4.7 µF,50V,Electrolytic
C201	VCEAZA1AW477M	J	AC	470 µF,10V,Electrolytic
C202	VCTYMN1CY103K	J	AA	0.01 µF,16V
C203	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C204	VCTYMN1CY103K	J	AA	0.01 µF,16V
C205,206	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C207	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C251,252	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C256	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C257	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C301	VCKYMN1HB102K	J	AA	0.001 µF,50V
C302	VCKYBT1HB102K	J	AA	0.001 µF,50V
C321	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C322	VCCCMN1HH6R8D	J	AA	6.8 pF (CH),50V
C323	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C324	VCCUMN1HJ270J	J	AA	27 pF (UJ),50V
C325	VCKYMN1HB221K	J	AA	220 pF,50V
C326	VCCCMN1HH180J	J	AA	18 pF (CH),50V
C327	VCKYMN1HB681K	J	AA	680 pF,50V
C328	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C329	VCCSPA1HL330J	J	AA	33 pF,50V
C330	VCCUMN1HJ100J	J	AA	10 pF (UJ),50V
C331	VCKYPA1HF473Z	J	AB	0.047 µF,50V
C332	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C333	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C334	VCCUMN1HJ180J	J	AA	18 pF (UJ),50V
C335	VCCCMN1HH180J	J	AA	18 pF (CH),50V
C336	VCKYMN1HB471K	J	AA	470 pF,50V
C337	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C338	VCKYMN1HB102K	J	AA	0.001 µF,50V
C339	VCCCMN1HH220J	J	AA	22 pF (CH),50V
C341,342	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C343,344	VCCSMN1HL330J	J	AA	33 pF,50V
C345~347	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C350,351	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C352	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C353,354	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C355	VCCSMN1HL220J	J	AA	22 pF,50V
C356	VCKYMN1HB102K	J	AA	0.001 µF,50V
C357	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C358	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C361	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C362	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C363	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C364	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C365	VCTYPA1CX223K	J	AA	0.022 µF,16V
C366	VCKYMN1HB102K	J	AA	0.001 µF,50V
C367,368	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C369	VCCSBT1HL270J	J	AA	27 pF,50V
C370~372	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C373,374	VCTYPA1CX273K	J	AA	0.027 µF,16V
C375	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C380	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C381	VCCCMN1HH120J	J	AA	12 pF (CH),50V
C382	VCCCMN1HH150J	J	AA	15 pF (CH),50V
C384	VCKYMN1HB102K	J	AA	0.001 µF,50V
C385	VCTYMN1CY103K	J	AA	0.01 µF,16V
C386	VCKYMN1HB331K	J	AA	330 pF,50V
C387	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C391	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C392	VCKYMN1HB102K	J	AA	0.001 µF,50V
C393	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C394	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C395	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C396	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C397	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C398	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C399	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C453,454	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C456,457	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C458	VCQYKA1HM473J	J	AB	0.047 µF,50V,Mylar
C460	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C461	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C471	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C472	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
C481~484	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C485	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C486	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C487	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C488	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C501~508	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C509,510	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C511,512	VCKYMN1HB101K	J	AA	100 pF,50V
C515,516	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C517,518	RC-QZA184AFYJ	J	AC	0.18 µF,50V,Mylar
C521,522	VCFYDA1HA184J	J	AC	0.18 µF,50V,Thin Film
C523,524	VCFYDA1HA154J	J	AB	0.15 µF,50V,Polyester
C525,526	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
C527,528	VCQYKA1HM273J	J	AB	0.027 µF,50V,Mylar
C529,530	VCQYKA1HM153J	J	AB	0.015 µF,50V,Mylar
C531,532	VCQYKA1HM222J	J	AB	0.0022 µF,50V,Mylar
C533,534	VCQYKA1HM472J	J	AA	0.0047 µF,50V,Mylar
C535,536	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C539~542	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C543	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C545,546	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C547,548	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
C549,550	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C551,552	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C553,554	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C555,556	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
C557~559	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C560	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C561,562	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C563,564	VCTYMN1CY822K	J	AA	0.0082 µF,16V
C565,566	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C567,568	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C569,570	VCKYMN1HB681K	J	AA	680 pF,50V
C571,572	VCKYMN1HB271K	J	AA	270 pF,50V
C573,574	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C575~578	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C579	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
C581,582	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C701	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C702	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C705~708	VCKYTV1HB102K	J	AA	0.001 µF,50V
C709	VCCSTV1HL151J	J	AA	150 pF,50V
C710	VCEAZA0JW227M	J	AC	220 µF,6.3V,Electrolytic
C711	VCKYTV1HF223Z	J	AA	0.022 µF,50V
C715~718	VCKYBT1HB151K	J	AA	150 pF,50V
C728~730	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C732~741	VCCSTV1HL221J	J	AA	220 pF,50V
C782	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C820	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C821,822	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C823	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C824	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C825	VCEAZA1EW227M	J	AC	220 µF,25V,Electrolytic
C826	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C827	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C830	RC-GZW478AF1E	J	AG	4700 µF,25V,Electrolytic
C831	VCTYBT1EF223Z	J	AA	0.022 µF,25V
C832	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
C833	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C851,852	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar
C853,854	VCQYKA1HM473J	J	AB	0.047 µF,50V,Mylar
C855,856	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C857	VCEAZA1VW107M	J	AC	100 µF,35V,Electrolytic
C858	VCEAZV1HW227M	J	AD	220 µF,50V,Electrolytic
C859	RC-GZV227AF1J	J	AD	220 µF,63V,Electrolytic
C860	VCEAZV1HW227M	J	AD	220 µF,50V,Electrolytic
C861	RC-GZV227AF1J	J	AD	220 µF,63V,Electrolytic
C867,868	RC-QZA224AFYJ	J	AB	0.22 µF,50V,Mylar
C907,908	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C911,912	VCCSMN1HL470J	J	AA	47 pF,50V
C913,914	VCCSMN1HL330J	J	AA	33 pF,50V
C917,918	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
C921~924	VCQYKA1HM104J	J	AC	0.1 µF,50V,Mylar
C925~932	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
C933,934	VCQYKA1HM102J	J	AB	0.001 µF,50V,Mylar
C935,936	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C937,938	VCKYBT1HB101K	J	AA	100 pF,50V
C970	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
C983,984	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C985,986	VCEAZW1VW478M	J	AL	4700 µF,35V,Electrolytic
C988	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C989	VCEAZA1EW227M	J	AC	220 µF,25V,Electrolytic
C990	VCKYPA1HF223Z	J	AB	0.022 µF,50V

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C991,992	RC-GZV476AF2A	J	AC	47 µF,100V,Electrolytic
C994	VCEAZA1HW107M	J	AC	100 µF,50V,Electrolytic
C995,996	RC-EZ1681AFZZ	J	AH	3300 µF,63V,Electrolytic
C997	VCEAZA1HW476M	J	AB	47 µF,50V,Electrolytic
C998,999	VCKYPA1HB102K	J	AA	0.001 µF,50V
CD01,02	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
CD03,04	VCKYMN1HB471K	J	AA	470 pF,50V
CD05	VCKYMN1HB331K	J	AA	330 pF,50V
CD06	VCKYBT1HB331K	J	AA	330 pF,50V
CD07,08	VCKYMN1HB331K	J	AA	330 pF,50V
CD09~11	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
CD12,13	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
CD14~18	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
CD19,20	VCKYMN1HB151K	J	AA	150 pF,50V
CD21	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CD31,32	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CD33,34	VCKYMN1HB151K	J	AA	150 pF,50V
CD35,36	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
CD37,38	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
CD39,40	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
CD41,42	RC-GZA226AF1E	J	AB	22 µF,25V,Electrolytic
CD43,44	VCTYMN1CY103N	J	AA	0.01 µF,16V
CD45	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CD46	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CD51,52	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
CM01	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CM02	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
CP01,02	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CP07,08	VCFYHA1HA124J	J	AB	0.12 µF,50V,Thin Film
CP09,10	VCFYHA1HA334J	J	AC	0.33 µF,50V,Thin Film
CP11,12	VCKYMN1HB101K	J	AA	100 pF,50V
CP13,14	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
CP17	VCQYKA1HM473J	J	AB	0.047 µF,50V,Mylar
CP18	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CS01,02	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CS03,04	VCCSPA1HL470J	J	AA	47 pF,50V
CS05,06	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CS07,08	VCCSPA1HL470J	J	AA	47 pF,50V
CS09,10	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CS11,12	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CS13	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CS14,15	VCFYHA1HA104J	J	AB	0.1 µF,50V,Thin Film
CS16~19	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CS20	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
CS21	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CS22	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
CS23	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CS24,25	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CS26	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
CS27	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS28	VCQYKA1HM823J	J	AC	0.082 µF,50V,Mylar
CS29	VCQYKA1HM332J	J	AB	0.0033 µF,50V,Mylar
CS30	VCQYKA1HM823J	J	AC	0.082 µF,50V,Mylar
CS31	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
CS32	VCCSPA1HL681J	J	AA	680 pF,50V
CS33	VCFYHA1HA473J	J	AB	0.047 µF,50V,Thin Film
CS34	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
CS35	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS36	RC-GZA476AF1C	J	AB	47 µF,16V,Electrolytic
CS37,38	VCFYHA1HA104J	J	AB	0.1 µF,50V,Thin Film
CS39	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS40	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
CS41	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS42	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
CS43	RC-GZA154AF1H	J	AA	0.15 µF,50V,Electrolytic
CS44	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
CS45,46	RC-GZA154AF1H	J	AA	0.15 µF,50V,Electrolytic
CS47	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
CS48	RC-GZA154AF1H	J	AA	0.15 µF,50V,Electrolytic
CS49	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
CS50	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS51	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
CS52	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS53	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
CS55,56	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CS57	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
CS58	RC-GZA224AF1H	J	AA	0.22 µF,50V,Electrolytic
CS59	VCQYKA1HM272J	J	AB	0.0027 µF,50V,Mylar
CS60	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CS62~64	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CS65	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS66,67	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar

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CS68	VCQYKA1HM472J	J	AA	0.0047 µF,50V,Mylar
CS69	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS70,71	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
CS72	VCQYKA1HM472J	J	AA	0.0047 µF,50V,Mylar
CS73	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS74,75	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
CS76	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
CS77	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
CS78~82	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CS83	VCQYKA1HM102J	J	AB	0.001 µF,50V,Mylar
CS84	VCQYKA1HM123J	J	AB	0.012 µF,50V,Mylar
CS85	VCQYKA1HM823J	J	AC	0.082 µF,50V,Mylar
CS86	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CS87	VCTYBT1EF223Z	J	AA	0.022 µF,25V
CS88~90	VCKYPA1HB101K	J	AA	100 pF,50V
CS91	RC-EZ0004AWZZ	J	AD	100 µF,10V,Electrolytic
CS92	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CS93	VCQYKA1HM223J	J	AB	0.022 µF,50V,Mylar
CS94	VCTYBT1EF223Z	J	AA	0.022 µF,25V,
CT01~04	VCKYMN1HB391K	J	AA	390 pF,50V
CT05	VCKYPA1HF223Z	J	AB	0.022 µF,50V
CT07,08	VCKYMN1CX222K	J	AA	0.0022 µF,16V
CT09,10	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CT11~14	VCCSMN1HL470J	J	AA	47 pF,50V
CT15,16	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT17,18	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
CT19~21	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
CT21A	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
CT22A	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT23	VCKYMN1CX222K	J	AA	0.0022 µF,16V
CT23A	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
CT24	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CT24A	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT25	VCTYBT1CX562M	J	AA	0.0056 µF,16V
CT25A	VCKYMN1HB561K	J	AA	560 pF,50V
CT26	VCTYMN1CX562K	J	AA	0.0056 µF,16V
CT26A,27A	VCCCPA1HH220J	J	AA	22 pF (CH),50V
CT27,28	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
CT28A	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
CT29A	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT31	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
CT32	RC-GZA476AF1E	J	AB	47 µF,25V,Electrolytic
CT33,34	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT35,36	VCCSMN1HL470J	J	AA	47 pF,50V
CT36A	VCKYPA1HF223Z	J	AB	0.022 µF,50V
CT37A	VCTYMN1EF223Z	J	AA	0.022 µF,25V
CT43A	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
	VRS-TV2AB000J	J	AA	0 ohm,Jumper,1.25×2mm,Green
R1	VRD-MN2BD100J	J	AA	10 ohm,1/8W
R2	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R3,4	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R5	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R6,7	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R8	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R9	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R10	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R11	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R12	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R13	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R14	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R15	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R16	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R17	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R18	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R19,20	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R21,22	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R23	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R24	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R25	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R26	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R27	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R28	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R29	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R30	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R31	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R32	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R33	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R34	VRD-MN2BD223J	J	AA	22 kohms,1/8W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R35,36	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R37	VRD-ST2CD823J	J	AA	82 kohms,1/6W
R38	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R39	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R40	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R41,42	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R43	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R44	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R45	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R46	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R47	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R48	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R49	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R50	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R51	VRD-ST2CD335J	J	AA	3.3 Mohms,1/6W
R52	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R53	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R54	VRD-ST2CD331J	J	AA	330 ohms,1/6W
R55	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R56,57	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R58,59	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R60~62	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R63	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R64	VRD-MN2BD220J	J	AA	22 ohms,1/8W
R66	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R71,72	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R73,74	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R80	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R81	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R82	VRD-MN2BD105J	J	AA	1 Mohm,1/8W
R83,84	VRD-ST2EE1R0J	J	AA	1 ohm,1/4W
R85	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R86	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R87	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R88~92	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R101,102	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R103,104	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R105,106	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R107,108	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R109	VRS-TQ2BB103J	J	AA	10 kohm,1/8W
R110	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R111,112	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R113	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R114,115	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R117,118	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R119,120	VRD-ST2CD560J	J	AA	56 ohms,1/6W
R121,122	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R123,124	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R125	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R126~128	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R129,130	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R131,132	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R133	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R134	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R135,136	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R137,138	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
R139,140	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R141	VRD-ST2CD1R0J	J	AA	1 ohm,1/6W
R145	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R148	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R149,150	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R152	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R153	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R154	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R155,156	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R157	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R158	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R160,161	VRD-ST2CD151J	J	AA	150 ohms,1/6W
R162,163	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R164,165	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R166	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R167	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R168	VRD-MN2BD4R7J	J	AA	4.7 ohms,1/8W
R169	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R170	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R171	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R172	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R173,174	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R179,180	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R185,186	VRD-ST2EE330J	J	AA	33 ohms,1/4W
R189	VRD-ST2CD100J	J	AA	10 ohm,1/6W
R190	VRD-MN2BD100J	J	AA	10 ohm,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R191,192	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R195,196	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R197,198	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R201,202	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R204~206	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R207~209	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R210	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R211	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R215~217	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R218	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R219	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R220	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R221	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R222	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R223~228	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R229,230	VRD-MN2BD151J	J	AA	150 ohms,1/8W
R231	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R232	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R233,234	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R235	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R236	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R237	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R238	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R239	VRD-MN2BD820J	J	AA	82 ohms,1/8W
R240	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R256	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R257,258	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R301	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R319	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R323	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R324	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R331	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R332	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R333	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R334	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R335	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R336	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R337	VRD-ST2CD471J	J	AA	470 ohms,1/6W
R344	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R345	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R346	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R347	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R348	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R349	VRD-ST2CD330J	J	AA	33 ohms,1/6W
R350	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R351	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R352	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R353	VRD-MN2BD271J	J	AA	270 ohms,1/8W
R354	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R355	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R356	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R357	VRD-ST2CD474J	J	AA	470 kohms,1/6W
R358	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R359	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R360	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R361,362	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R363,364	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R365,366	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R367	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R368	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R369	VRD-MN2BD820J	J	AA	82 ohms,1/8W
R370	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R371~374	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R376	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R377	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R378	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R379	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R380	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R381	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R382	VRD-ST2EE151J	J	AA	150 ohms,1/4W
R383~385	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R387	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R391,392	VRD-ST2EE391J	J	AA	390 ohms,1/4W
R393	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R395	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R397	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R455,456	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R459	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R460	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R461,462	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R465	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R466	VRD-MN2BD102J	J	AA	1 kohm,1/8W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R467	VRD-ST2CD681J	J	AA	680 ohms,1/6W
R468,469	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R470	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R471,472	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R473,474	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R475	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R477	VRD-ST2CD681J	J	AA	680 ohms,1/4W
R479	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R480	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R481	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R482	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R483	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R484	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R487	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R488	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R490	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R491	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R492	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R493	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R498	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R501,502	VRD-MN2BD564J	J	AA	560 kohms,1/8W
R503,504	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R505,506	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R509~511	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R512	VRD-MN2BD564J	J	AA	560 kohms,1/8W
R513,514	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R515	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R516	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R517,518	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R521,522	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R553	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R554	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R555	VRD-MN2BD274J	J	AA	270 kohms,1/8W
R556	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R557	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R558	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R559	VRD-ST2CD225J	J	AA	2.2 Mohms,1/6W
R560	VRD-MN2BD225J	J	AA	2.2 Mohms,1/8W
R561	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R562	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R563	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R564	VRD-MN2BD684J	J	AA	680 kohms,1/8W
R565	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R566	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R567	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R568	VRD-ST2CD683J	J	AA	68 kohms,1/6W
R569	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R570	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R571	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R572	VRD-MN2BD474J	J	AA	470 kohms,1/8W
R573	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R574	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R575	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R576	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R577	VRD-MN2BD394J	J	AA	390 kohms,1/8W
R578	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R579	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R580	VRD-ST2CD224J	J	AA	220 kohms,1/6W
R581	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R582	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R583	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R591,592	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R595,596	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R700	VRD-ST2EE390J	J	AA	39 ohms,1/4W
R701~703	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R706,707	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R708	VRD-ST2CD821J	J	AA	820 ohms,1/6W
R709~712	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R713	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R714,715	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R716	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R717	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R718	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R719	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R720~723	VRS-TV2AB103J	J	AA	10 kohm,1/10W
R724	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R725	VRS-TV2AB822J	J	AA	8.2 kohms,1/10W
R726	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R727	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
R728	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R729	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R730	VRS-TV2AB822J	J	AA	8.2 kohms,1/10W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R731	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R732	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R733	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R734	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R735	VRS-TV2AB392J	J	AA	3.9 kohms,1/10W
R736	VRS-TV2AB562J	J	AA	5.6 kohms,1/10W
R737	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R740	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R741	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R742	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R743	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R744	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R745	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R746	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R747	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R748	VRS-TV2AB392J	J	AA	3.9 kohms,1/10W
R749	VRS-TV2AB562J	J	AA	5.6 kohms,1/10W
R750	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R751	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R752	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R753	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R754	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R755	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R756	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
R757	VRS-TV2AB123J	J	AA	12 kohms,1/10W
R758	VRD-ST2CD822J	J	AA	8.2 kohms,1/6W
R759	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R760	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
R765	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R766	VRS-TV2AB122J	J	AA	1.2 kohms,1/10W
R767	VRS-TV2AB182J	J	AA	1.8 kohms,1/10W
R768	VRS-TV2AB222J	J	AA	2.2 kohms,1/10W
R769	VRS-TV2AB392J	J	AA	3.9 kohms,1/10W
R770~772	VRS-TV2AB821J	J	AA	820 ohms,1/10W
R773	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R774~777	VRD-ST2CD681J	J	AA	680 ohms,1/6W
R778~785	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R786,787	VRS-TV2AB681J	J	AA	680 ohms,1/10W
R788	VRS-TV2AB102J	J	AA	1 kohm,1/10W
R789	VRS-TV2AB681J	J	AA	680 ohms,1/10W
R790	VRS-TQ2BB102J	J	AA	1 kohm,1/8W
R791	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R792	VRS-TQ2BB102J	J	AA	1 kohm,1/8W
R793,794	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R795	VRS-TQ2BB102J	J	AA	1 kohm,1/8W
R796	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R797	VRS-TQ2BB102J	J	AA	1 kohm,1/8W
R798,799	VRS-TV2AB822J	J	AA	8.2 kohms,1/10W
R820	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R822	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R823,824	VRD-ST2CD470J	J	AA	47 ohms,1/6W
R825	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R826	VRD-ST2EE561J	J	AA	560 ohms,1/4W
⚠ R827	VRG-ST2EC220J	J	AB	22 ohms,1/4W,Fusible
R828	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R829	VRD-ST2EE152J	J	AA	1.5 kohms,1/4W
R831	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R834	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R835	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R851	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R857	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R907,908	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R909,910	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R911,912	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R913,914	VRD-ST2EE331J	J	AA	330 ohms,1/4W
R915,916	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R919,920	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R921~924	VRN-VV3DAR22J	J	AC	0.22 ohms,2W
R925,926	VRD-ST2CD563J	J	AA	56 kohms,1/6W
R927,928	VRD-RT2HD4R7J	J	AA	4.7 ohms,1/2W
R929,930	VRD-RT2HD3R9J	J	AA	3.9 ohms,1/2W
R931,932	VRD-RT2HD5R6J	J	AA	5.6 ohms,1/2W
R933,934	VRS-VV3DA391J	J	AC	390 ohms,2W
R939,940	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R941,942	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R947,948	VRD-ST2CD123J	J	AA	12 kohms,1/6W
R971	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R972	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R973	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R974	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R975	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
R976	VRD-ST2EE470J	J	AA	47 ohms,1/4W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R977	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R978	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R979	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R985	VRS-VV3DA391J	J	AC	390 ohms,2W
R987,988	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R989~992	VRD-RT2HD100J	J	AA	10 ohm,1/2W
⚠ R993,994	VRG-ST2HC101J	J	AB	100 ohm,1/2W,Fusible
R995	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R996	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R997	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
R998	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R999	VRD-ST2CD100J	J	AA	10 ohm,1/6W
RA01	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA02~05	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA06~10	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA11~13	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA14	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA17	VRD-MN2BD821J	J	AA	820 ohms,1/8W
RA19~23	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA24	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RA25~28	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA29	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RA30~33	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA34,35	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA36,37	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA38,39	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA40	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA41,42	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA43	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RA44,45	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA46,47	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA48,49	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA51	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA52,53	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA54	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA55	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA58	VRD-ST2CD101J	J	AA	100 ohm,1/6W
RA59	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA61	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA62,63	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA64,65	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA66	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA67	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA68,69	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA70	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA71,72	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA73	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RA75	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA76,77	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA78~80	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA81	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA82,83	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA87,88	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA91~94	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA95,96	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA97,98	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RA99	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD01	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD02	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD03,04	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RD05,06	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD07,08	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD09	VRD-ST2CD223J	J	AA	22 kohms,1/6W
RD10,11	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD12	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RD13,14	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD15	VRD-ST2EE271J	J	AA	270 ohms,1/4W
RD16	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD21	VRD-ST2CD683J	J	AA	68 kohms,1/6W
RD22	VRD-MN2BD683J	J	AA	68 kohms,1/8W
RD23,24	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RD25,26	VRD-MN2BD471J	J	AA	470 ohms,1/8W
RD27	VRD-ST2CD683J	J	AA	68 kohms,1/6W
RD28	VRD-MN2BD683J	J	AA	68 kohms,1/8W
RD29,30	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RD31,32	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
RD33,34	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RD35	VRD-MN2BD105J	J	AA	1 Mohm,1/8W
RD36	VRD-MN2BD101J	J	AA	100 ohm,1/8W
RD37	VRD-ST2EE271J	J	AA	270 ohms,1/4W
RD38	VRD-ST2CD332J	J	AA	3.3 kohms,1/6W
RD39	VRD-MN2BD104J	J	AA	100 kohm,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
RD41	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RD42	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RD43,44	VRD-ST2CD224J	J	AA	220 kohms,1/6W
RD69	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD70	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RD71,72	VRD-ST2CD682J	J	AA	6.8 kohms,1/6W
RD73	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RD75	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RD76	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD77,78	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RM01	VRD-MN2BD333J	J	AA	33 kohms,1/8W
RM02	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RM03	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RM04	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RM05	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RM06	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RM09	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RM10	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RM11,12	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RM23,24	VRD-ST2CD821J	J	AA	820 ohms,1/6W
RM25	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RP01,02	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RP05,06	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RP07	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RP08	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RP09,10	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RP11,12	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RP13,14	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RP15,16	VRD-ST2EE221J	J	AA	220 ohms,1/4W
RP33	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RP37	VRD-MN2BD683J	J	AA	68 kohms,1/8W
RP38	VRD-ST2CD683J	J	AA	68 kohms,1/6W
RP41,42	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RP46	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W
RP101	RH-QX0009AWZZ	J	AE	Posistor,2.2 ohms
RS01,02	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RS03,04	VRD-ST2CD224J	J	AA	220 kohms,1/6W
RS05,06	VRD-ST2CD153J	J	AA	15 kohms,1/6W
RS07,08	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RS09,10	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RS11	VRD-ST2CD183J	J	AA	18 kohms,1/6W
RS12	VRD-ST2CD393J	J	AA	39 kohms,1/6W
RS14	VRD-ST2CD105J	J	AA	1 Mohm,1/6W
RS15	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RS16~19	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
RS20~23	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RS24~27	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RS28	VRD-ST2EE331J	J	AA	330 ohms,1/4W
RS29~32	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RS34,35	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RS36	VRD-ST2EE221J	J	AA	220 ohms,1/4W
RS37	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RS39	VRD-ST2CD322J	J		3.2 kohms,1/6W
RS40	VRD-ST2CD362J	J	AA	3.6 kohms,1/6W
RT01,02	VRD-MN2BD273J	J	AA	27 kohms,1/8W
RT03,04	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RT05,06	VRD-MN2BD273J	J	AA	27 kohms,1/8W
RT07,08	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RT07A,08A	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
RT09	VRD-ST2CD221J	J	AA	220 ohms,1/6W
RT10	VRD-MN2BD221J	J	AA	220 ohms,1/8W
RT11,12	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RT13,14	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RT15,16	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RT17	VRD-MN2BD183J	J	AA	18 kohms,1/8W
RT18	VRD-ST2CD183J	J	AA	18 kohms,1/6W
RT19,20	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
RT21,22	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RT21A	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RT23,24	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RT25	VRD-ST2CD221J	J	AA	220 ohms,1/6W
RT26~28	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RT26A	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RT28A	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RT29	VRD-MN2BD221J	J	AA	220 ohms,1/8W
RT29A	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RT30	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RT30A	VRD-MN2BD102J	J	AA	1 kohm,1/8W
RT31	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RT32	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
RT32A	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RT33,34	VRD-MN2BD473J	J	AA	47 kohms,1/8W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
RT33A,34A	VRD-ST2CD563J	J	AA	56 kohms,1/6W
RT35	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RT35A~37A	VRD-ST2CD224J	J	AA	220 kohms,1/6W
RT36	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RT37	VRD-MN2BD474J	J	AA	470 kohms,1/8W
RT38~40	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RT41	VRD-ST2CD221J	J	AA	220 ohms,1/6W
RT48A,49A	VRD-ST2EE391J	J	AA	390 ohms,1/4W
RT51A~54A	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RY01	VRS-TV2AB102J	J	AA	1 kohm,1/10W
RY03~10	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY12	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY14	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY16	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY18	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY20	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY22	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY24	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY29	VRS-TV2AB330J	J	AA	33 ohms,1/10W
RY30,31	VRD-ST2CD330J	J	AA	33 ohms,1/6W
RY32~38	VRS-TV2AB330J	J	AA	33 ohms,1/10W
RY40	VRS-TV2AB103J	J	AA	10 kohm,1/10W
RY41	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RY42,43	VRS-TV2AB103J	J	AA	10 kohm,1/10W
RY44	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RY56	VRS-TV2AB104J	J	AA	100 kohm,1/10W
RY57	VRD-ST2EE390J	J	AA	39 ohms,1/4W

OTHER CIRCUITRY PARTS

BI4A/B	QCNWN1086AWZZ	J	AH	Connector Ass'y,3/3Pin
BI851/CNS851	QCNWN1091AWZZ	J	AG	Connector Ass'y,4/4Pin
BIM1	QCNWN1005AWZZ	J	AF	Connector Ass'y,4Pin
BIM2/CNS2	QCNWN1020AWZZ	J	AF	Connector Ass'y,5/5Pin
BIM3	QCNWN0987AWZZ	J	AH	Connector Ass'y,6Pin
CFW1	QCNCWZG27AWZZ	J	AE	Socket,27Pin
CFW2	QCNCWZG27AWZZ	J	AE	Socket,27Pin
CFW852	QCNCWZG14AWZZ	J	AD	Socket,14Pin
CFW903	QCNCWZG14AWZZ	J	AD	Socket,14Pin
CNP1	92LCONPB7BPHK	J	AC	Plug,7Pin
CNP2	92LCONPB8BPHK	J	AC	Plug,8Pin
CNP3	92LCONE6P53253	J	AC	Plug,6Pin
CNP3A	92LCONE6P53254	J	AC	Plug,6Pin
CNP11	92LCONE4P53014	J	AC	Plug,4Pin
CNP12	92LCONE5P53253	J	AB	Plug,5Pin
CNP13	92LCONE6P53253	J	AC	Plug,6Pin
CNP101	92LCONE3P53253	J	AB	Plug,3Pin
CNP102	92LCONE7P53253	J	AC	Plug,7Pin
CNP201	QCNCWZS10AWZZ	J	AK	Socket,10Pin
CNP202	QCNCW010MAWZZ	J	AD	Plug,12Pin
CNP301	92LCONE2P5268	J	AB	Plug,2Pin
CNP303	QCNCM010MAWZZ	J	AC	Plug,10Pin
CNP501	QCNCM010QAWZZ	J	AD	Plug,15Pin
CNP851	QCNCM698DAFZZ	J	AB	Plug,4Pin
CNP901	QCNCM705BAFZZ	J	AA	Plug,2Pin
CNPS01	QCNCW010QAWZZ	J	AE	Socket,15Pin
CNS1A/B	QCNWN0858AWZZ	J	AG	Connector Ass'y,8/8Pin
CNS2A/B	QCNWN0859AWZZ	J	AF	Connector Ass'y,7/7Pin
CNS3A/B	QCNWN0857AFZZ	J	AK	Connector Ass'y,6/6Pin
CNS101A/B	QCNWN1095AWZZ	J	AG	Connector Ass'y,3/3Pin
CNS102A/B	QCNWN1096AWZZ	J	AM	Connector Ass'y,7/6Pin
CNS701	QCNCMZS10AWZZ	J	AK	Socket,10Pin
CNS901	QCNWN1090AWZZ	J	AD	Connector Ass'y,2Pin
⚠ F820	92LFUSE-T501E	J	AD	Fuse,T500mA L 250V
⚠ F853	92LFUSE-T202-E	J	AD	Fuse,T2A L 250V
⚠ F855	92LFUSE-T202-E	J	AD	Fuse,T2A L 250V
⚠ F857,858	92LFUSE-T502-E	J	AD	Fuse,T5A L 250V
FL701	VVKCK1627M/-1	J	BM	FL Display
FW1	QCNWN1085AWZZ	J	AF	Flat Cable,27Pin
FW201	QCNWN1103AWZZ	J	AG	Flat Wire,12Pin
FW701	QCNWN1092AWZZ	J	AE	Flat Cable,6Pin
FW853	QCNWN1100AWZZ	J	AC	Flat Wire,3Pin
FW901	QCNWN1087AWZZ	J	AD	Flat Cable,5Pin
FW903	QCNWN1089AWZZ	J	AH	Flat Cable,14Pin
FW904	QCNWN1088AWZZ	J	AF	Flat Wire,8Pin
FWM1	QCNWN1093AWZZ	J	AF	Flat Wire,8Pin
FWM2	QCNWN1094AWZZ	J	AH	Flat Wire,13Pin
IC95	VHPGP1F38T/-1	J	AL	Terminal,Digital Output
J901	QJAKM0005AWZZ	J	AD	Jack,Headphones
JT01	92LJACKL1693A	J	AH	Jack,VIDEO/AUX 1,2
JT02	QSOCJ0210AWZZ	J	AF	Jack,Pre OUT,Surround/Center
JT03	QSOCJ0104AWZZ	J	AD	Jack,Pre OUT,Super Woofer

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
M701	92LMTR1854CASY	J	AS	Motor with Chassis [Spindle]
M702	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
M901	92LMTR1810A	J	AK	Motor,Air Cooling Fan
MM1(300-3)	92PF525-319	J	AW	Motor with Pulley [Tape]
MOB1	RMOTV0373AFM1	J	AQ	Main Cam Motor Ass'y
MOB2	RMOTV0373AFM1	J	AQ	Tray Motor Ass'y
PHM1,2	———		—	Photo Interrupter (Supplies at REF No.PWB-G/ PWB-H)
RL851	RRLYD0117AFZZ	J	AP	Relay
RL901	RRLYD0004AWZZ	J	AP	Relay
RX701	VHLSPS4421/-1	J	AL	Remote Control Sensor, SPS4421
SO301	QTANC0103AWZZ	J	AD	Antenna Terminal
SO901	QTANA0404AWZZ	J	AF	Terminal,Speaker
SOL1,2	———		—	Solenoid (Supplies at REF No.PWB-G/ PWB-H)
SW701	QSW-Z0003AWZZ	J	AH	Switch,Rotary Type [Volume Up/Down]
SW702	QSW-Z0003AWZZ	J	AH	Switch,Rotary Type [Jog Dial]
SW702A	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]
SW703	92LSWICHT1663T	J	AC	Switch,Key Type [X-BASS]
SW704	92LSWICHT1663T	J	AC	Switch,Key Type [Equalizer/Demo]
SW705	92LSWICHT1663T	J	AC	Switch,Key Type [SRS Mode]
SW706	92LSWICHT1663T	J	AC	Switch,Key Type [SRS Pass]
SW707	92LSWICHT1663T	J	AC	Switch,Key Type [FF]
SW708	92LSWICHT1663T	J	AC	Switch,Key Type [Stop]
SW709	92LSWICHT1663T	J	AC	Switch,Key Type [Edit Normal]
SW710	92LSWICHT1663T	J	AC	Switch,Key Type [Edit High]
SW711	92LSWICHT1663T	J	AC	Switch,Key Type [Record/Pause]
SW712	92LSWICHT1663T	J	AC	Switch,Key Type [Forward Play]
SW713	92LSWICHT1663T	J	AC	Switch,Key Type [Dolby-NR]
SW714	92LSWICHT1663T	J	AC	Switch,Key Type [Q-Sound]
SW715	92LSWICHT1663T	J	AC	Switch,Key Type [Virtual]
SW716	92LSWICHT1663T	J	AC	Switch,Key Type [Dolby-Pro Logic]
SW717	92LSWICHT1663T	J	AC	Switch,Key Type [Rewind]
SW718	92LSWICHT1663T	J	AC	Switch,Key Type [CD Pause]
SW719	92LSWICHT1663T	J	AC	Switch,Key Type [Reverse Play]
SW720	92LSWICHT1663T	J	AC	Switch,Key Type [Reverse Mode]
SW721	92LSWICHT1663T	J	AC	Switch,Key Type [Clock]
SW722	92LSWICHT1663T	J	AC	Switch,Key Type [Timer]
SW723	92LSWICHT1663T	J	AC	Switch,Key Type [Sleep]
SW724	92LSWICHT1663T	J	AC	Switch,Key Type [Video/AUX]
SW725	92LSWICHT1663T	J	AC	Switch,Key Type [Tape 1/2]
SW726	92LSWICHT1663T	J	AC	Switch,Key Type [Tuner (BAND)]
SW727	92LSWICHT1663T	J	AC	Switch,Key Type [CD]
SW728	92LSWICHT1663T	J	AC	Switch,Key Type [PROGRAMME TYPE/ TRAFFIC INFORMATION SERTCH]
SW729	92LSWICHT1663T	J	AC	Switch,Key Type [EON]
SW730	92LSWICHT1663T	J	AC	Switch,Key Type [DISPLAY MODE]
SW731	92LSWICHT1663T	J	AC	Switch,Key Type [APSM
SW732	92LSWICHT1663T	J	AC	Switch,Key Type [Clear]
SW733	92LSWICHT1663T	J	AC	Switch,Key Type [Memory/Set]
SW734	92LSWICHT1663T	J	AC	Switch,Key Type [On/Stand-by]
SW739	92LSWICHT1663T	J	AC	Switch,Key Type [Disc 3 Open/Close]
SW740	92LSWICHT1663T	J	AC	Switch,Key Type [Disc 3]
SW741	92LSWICHT1663T	J	AC	Switch,Key Type [Disc 2 Open/Close]
SW742	92LSWICHT1663T	J	AC	Switch,Key Type [Disc 2]
SW743	92LSWICHT1663T	J	AC	Switch,Key Type [Disc 1 Open/Close]
SW744	92LSWICHT1663T	J	AC	Switch,Key Type [Disc 1]
SWB101,102	QSW-F0353AFZZ	J	AD	Switch,Leaf Type [Cam1,2]
SWB103,104	QSW-F0353AFZZ	J	AD	Switch,Leaf Type [Cam3,4]
SWB105	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD Eject]
SWB106	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD Tray Close]
SWB107	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD In]
SWB108	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD Set]
SWE1	———		—	Switch,Leaf Type [Tape 1 Play] (Supplies at REF No.PWB-G)
SWE2	———		—	Switch,Leaf Type [Tape 1 CrO2]
SWE4	———		—	Switch,Leaf Type [Tape 2 Play] (Supplies at REF No.PWB-H)

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
SWE5	———		—	Switch,Leaf Type [Tape 2 CrO_2] (Supplies at REF No.PWB-H)
SWE7	———		—	Switch,Leaf Type [Tape 2 Side A FP]
SWE8	———		—	Switch,Leaf Type [Tape 2 Side B FP]
TP451	92LCONE3P53253	J	AB	Plug,3Pin [Test Point]
WT853	QCNCW039CAWZZ	J	AD	Socket,3Pin
WT902	92LCONE5P52287	J	AC	Socket,5Pin
WTM1	92LCONE8P52287	J	AD	Plug,8Pin,Wire Trap
WTM2	QCNCW012NAWZZ	J	AE	Plug,13Pin,Wire Trap

CD MECHANISM PARTS

301	NGERH0011AWZZ	J	AC	Gear,Middle
302	NGERH0012AWZZ	J	AC	Gear,Drive
303	MLEVP0010AWZZ	J	AC	Rail,Guide
304	NSFTM0002AWFW	J	AE	Shaft,Guide
305	PCUSG0427AFSC	J	AC	Cushion
⚠306	RCTRH8164AFZZ	J	BF	Pickup Unit Ass'y
306-1	———		—	Pickup Unit (Not Replacement Item)
306-2	NGERR0043AFZZ	J	AC	Gear,Rack
306-3	MSPRC0961AFZZ	J	AA	Spring,Rack
307	PCUSG0001AWSA	J	AD	Insulator
308	PCUSG0004AWSA	J	AD	Insulator
701	92L2R6S+6CZ	J	AB	Screw,ø2.6x6mm
702	XHBSD20P05000	J	AA	Screw,ø2x5mm
703	XBBSD20P03000	J	AA	Screw,ø2x3mm
704	92L1R5WC3R8R25	J	AA	Washer,ø1.5xø3.8x0.25mm
M701	92LMTR1854CASY	J	AS	Motor with Chassis [Spindle]
M702	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
SW702A	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]

CHANGER MECHANISM

101	LCHSM0037AWZZ	J	AP	Main Base
102	LANGF0024AWZZ	J	AE	Top Board
103	NROLP0007AWZZ	J	AB	Roliar,Cam Guide
104	NPLYR0004AWZZ	J	AC	Pulley,Drive
105	NGERH0052AWZZ	J	AC	Gear,Idler
106	NGERH0053AWZZ	J	AB	Gear,Cam
107	NGERH0054AWZZ	J	AB	Gear,Midle
108	NGERH0057AWZZ	J	AB	Gear,Tray Idler
109	MCAMP0127AFZZ	J	AR	Main Cam
110	MLEVP0056AWZZ	J	AC	Lever,Front Switch
111	MLEVP0057AWM1	J	AC	Rear Switch Lever Ass'y
112	MLEVP0058AWZZ	J	AB	Lever,Tray Lock
113	PGIDM0018AWZZ	J	AF	Holder,Mechanism
114	PGIDM0019AWZZ	J	AE	Holder,Stabilizer
115	LHLDM1008AWZZ	J	AD	Stabilizer
116	PGIDM0017AWZZ	J	AC	Guide,Mechanism Holder
119	GCOVA1152AWZZ	J	AL	Tray,Disc Guide
120	GCOVA1153AWZZ	J	AF	Tray,Disc
121	LANGF0025AWZZ	J	AB	Bracket,Switch
122	NSFTL0001AWZZ	J	AB	Shaft,Tray Change
123	MSPRD0078AWFJ	J	AB	Spring,Tray Switch
124	MSPRD0080AWFJ	J	AB	Spring,Tray Lock Lever
125	MSPRD0079AWFJ	J	AB	Spring,Disc Stop
126	NBLTK0028AWZZ	J	AB	Belt,Tray Drive
127	NBLTK0027AWZZ	J	AB	Belt,Cam Drive
128	PMAGF0001AWZZ	J	AF	Magnet
129	92LN-BAND1318A	J	AA	Nylon Band,80mm
130	PGUMS0016AWZZ	J	AB	Tray Rubber
131	LANGF0028AWZZ	J	AB	Bracket,Mechanism Holder
132	LCHSM0038AWZZ	J	AK	Changer Box
133	NGERH0055AWZZ	J	AC	Gear,Center
134	NGERH0056AWZZ	J	AB	Gear,Center Tray
135	NGERH0058AWZZ	J	AB	Gear,Tray Drive
136	MLEVP0052AWZZ	J	AC	Lever,Tray Change
137	MLEVP0053AWZZ	J	AC	Lever,Top Joint
138	MLEVP0054AWZZ	J	AC	Lever,Midle Joint
139	MLEVP0055AWZZ	J	AC	Lever,Bottom Joint
801	XBPSD26P04000	J	AA	Screw,ø2.6x4mm
802	XEBSD20P07000	J	AB	Screw,ø2x7mm
803	XEBSD20P06000	J	AA	Screw,ø2x6mm
804	XEBSD26P12000	J	AA	Screw,ø2.6x12mm
805	LX-EZ0005AWFD	J	AA	Screw,ø2.6x10mm
MOB1	RMOTV0373AFM1	J	AQ	Main Cam Motor Ass'y
MOB2	RMOTV0373AFM1	J	AQ	Tray Motor Ass'y
SWB101,102	QSW-F0353AFZZ	J	AD	Switch,Leaf Type [Cam1,2]
SWB103,104	QSW-F0353AFZZ	J	AD	Switch,Leaf Type [Cam3,4]
SWB105	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD Eject]
SWB106	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD Tray Close]
SWB107	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD In]
SWB108	QSW-P0920AFZZ	J	AC	Switch,Push Type [CD Set]

CABINET PARTS

201	92LCAB2773AS1	J		Front Panel Ass'y
201-1	———		—	Front Panel (Not Replacement Item)
201-2	PCUSG0022AWZZ	J	AB	Cushion,Leg
201-3	HDECP0043AWSA	J	AE	Panel,Function
202	92LPNL2773AS1	J		FL Panel Ass'y
202-1	HBDGB1006AWSA	J	AD	Badge,SHARP
202-2	HDECQ0348AWSA	J	AT	Panel,FL Display
203	KNOB2695AASY1	J	AR	Disc No.Button Ass'y
204	KNOB2695BASY1	J	AT	Operation Button Ass'y
205	GCAB-1049AWSA	J	AR	Top Cabinet
206	GCOVA1173AWSA	J	AK	Cover,Disc Tray 1
207	GCOVA1174AWSA	J	AK	Cover,Disc Tray 2
208	GCOVA1175AWSA	J	AK	Cover,Disc Tray 3
209	JKNBZ0464AWSA	J	AF	Button,Surround
211	GDORF0049AWSA	J	AM	Cassette Holder,Tape 1
212	GDORF0050AWSA	J	AM	Cassette Holder,Tape 2
213	GITAR0328AWSA	J	AT	Rear Panel
214	GITAS0044AWSA	J	AP	Side Panel,Left
215	GITAS0045AWSA	J	AP	Side Panel,Right
217	HDECQ0281AWSA	J	AH	Decoration Plate,Cassette Holder,Tape 1
218	HDECQ0282AWSA	J	AH	Decoration Plate,Cassette Holder,Tape 2
219	HDECQ0285AWSA	J	AL	Panel,Operation Botton
220	JKNBK0052AWSA	J	AF	Knob,Volume Up/Down
221	JKNBK0053AWSA	J	AF	Knob,Jog Dial
222	JKNBZ0455AWSA	J	AF	Button,Power On/Stand-by
223	JKNBZ0457AWSA	J	AF	Button,Function
224	JKNBZ0458AWSA	J	AF	Button,X-BASS
225	JKNBZ0459AWSA	J	AF	Button,SRS
226	LANGK0057AWFW	J	AE	Bracket,Heat Sink,Front
227	LANGK0058AWFW	J	AE	Bracket,Heat Sink,Rear
228	LANGK0059AWFW	J	AD	Bracket,Fan Motor
229	LANGK0104AWFW	J	AK	Bracket,Main PWB,Left
230	LANGK0110AWFW1	J	AD	Bracket,Cassette Lock,Tape 1
231	LANGK0111AWFW1	J	AD	Bracket,Cassette Lock,Tape 2
232	LANGK0113AWFW	J	AL	Bracket,Main PWB Supt,Right
⚠233	LBSHC0002AWZZ	J	AD	Bushing,AC Power Supply Cord
234	LCHSM0065AWFW	J	AV	Main Chassis
235	LCHSZ0012AWZZ	J	AQ	Holder,CD Mechanism
237	LHLDZ1171AWZZ	J	AF	Holder,FL Display
238	LHLDZ1172AWZZ1	J	AD	Holder,LED Operation,Left
239	LHLDZ1173AWZZ1	J	AD	Holder,LED Operation,Right
240	LHLDZ1174AWZZ	J	AD	Holder,LED Disc No.
241	MLIFP0003AWZZ	J	AE	Damper,Cassette Holder
242	MLOKC0001AWZZ	J	AD	Cassette Lock,Tape 1
243	MLOKC0002AWZZ	J	AD	Cassette Lock,Tape 2
244	MSPRD0092AWFJ	J	AB	Spring,Cassette,Tape 1
245	MSPRD0093AWFJ	J	AB	Spring,Cassette,Tape 2
246	MSPRD0109AWFJ	J	AB	Spring,Cassette Lock,Tape 1
247	MSPRD0110AWFJ	J	AB	Spring,Cassette Lock,Tape 2
248	NFANP0001AWZZ	J	AD	Rotary Fan
249	PCUSG0022AWZZ	J	AB	Cushion,Leg
250	PRDAR0065AWFW	J	AD	Heat Sink,Diode
251	PRDAR0095AWFW	J	BB	Heat Sink,Main
252	PRDAR0096AWFW	J	AM	Heat Sink,Sub
⚠253	QACCB0005AW00	J	AQ	AC Power Supply Cord [Except for UK]
⚠253	QACCE0008AW00	J	AG	AC Power Supply Cord [For UK]
254	QCNWN1102AWZZ	J	AE	Lead Wire with Lug
258	92LCAUT1706A1	J	AC	Label,Class 3
259	92LCAUT1706B	J	AA	Label,Laser Caution
260	92LCLMP1810A	J	AC	Wire Holder
261	92LCSPR1431C	J	AA	Spring,Rotary Fan
263	92LN-BAND1318A	J	AA	Nylon Band,80mm
265	92LRDAT1587A	J	AC	Heat Sink,Diode
⚠266	QFSHD0001AWZZ	J	AB	Holder,Fuse
⚠267	92LLUG1746A	J	AA	Lug,Terminal
274	PFLT-0037AWZZ	J	AB	Felt,Operation Button
275	RCORF0002AWZZ	J	AE	Core
276	JKNBZ0465AWSA	J	AF	Button,RDS
300	KMECB0006AWZZ	J	BS	Tape Mechanism Ass'y

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
300-1	92PF513-810	J	AY	Head,Record/Playback/Erase [Tape 2]
300-2	92PF513-811	J	AX	Head,Playback [Tape 1]
300-3(MM1)	92PF525-319	J	AW	Motor with Pulley [Tape]
300-4(PWB-H)	92PF567-612	J	AX	Tape 2 Mechanism PWB Ass'y
300-5(PWB-G)	92PF567-613	J	AV	Tape 1 Mechanism PWB Ass'y
300-6	92PFF17G-31	J	AG	Belt,Main
300-7	92PF514-118	J	AK	Pinch,Roller Ass'y,Right
300-8	92PF514-119	J	AK	Pinch,Roller Ass'y,Left
300-9	92PFF18W-12	J	AF	Belt,Fast Forward/Rewind
300-10	92PFF19D-21	J	AG	Belt,Joint
601	LX-HZ0009AWFD	J	AC	Screw,Special
602	LX-HZ0082AFZZ	J	AA	Screw,ø4×8mm
603	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
604	LX-JZ0022AFFD	J	AA	Screw,ø3×8mm
605	XBBSD20P04000	J	AA	Screw,ø2×4mm
606	XJBSD30P10000	J	AA	Screw,ø3×10mm
607	XHBSD26P04000	J	AA	Screw,ø2.6×4mm
608	XHBSD30P06000	J	AA	Screw,ø3×6mm
609	XJBSD30P10000	J	AA	Screw,ø3×10mm
610	XJBSD30P14000	J	AA	Screw,ø3×14mm
611	XJBSF30P10000	J	AA	Screw,ø3×10mm
612	XJBSF30P12000	J	AA	Screw,ø3×12mm
613	XJSSD30P10000	J	AA	Screw,ø3×10mm
614	XJBSD30P12000	J	AA	Screw,ø3×12mm
615	XEBSD30P10000	J	AA	Screw,ø3×10mm

ACCESSORIES/PACKING PARTS

QANTL0005AWZZ	J	AG	AM Loop Antenna
SPAKA0193AWZZ	J	AN	Packing Add.
SPAKC0649AWZZ	J	AZ	Packing Case
SPAKP0032AWZZ	J	AF	Polyethylene Bag,Unit
SPAKZ0375AWZZ	J	AF	Pad,Changer
SPAKZ0378AWZZ	J	AE	Pad,Protection B
TGAN-3170UMZZ	J	AE	Warranty Card [UK Only]
TINSE0210AWZZ	J	AG	Operation Manual [For UK]
TINSZ0304AWZZ	J	AW	Operation Manual [For Europe]
TINSZ0307AWZZ	J		Operation Manual [For East Europe]
TLABE0237AWZZ	J	AB	Label,Bar Code
92LBAG1460C1	J	AB	Polyethylene Bag,Accessories
92LBAG1770A	J	AB	Polyethylene Bag,AC Power Supply Cord
92LCAUT1451A	J	AB	Label,Warning
92LFANT1535A	J	AF	FM Antenna
92LLABL372C	J	AB	Label,Serial No.
RRMCG0128AWSA	J	AX	Remote Control
92LLID1782A	J	AQ	Battery Lid,Remote Control

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~3	92LPWB2773DPLS	J	—	Display/CD Switch/Headphone (Combined Ass'y)
PWB-B	92LPWB2773MANS	J	—	Main
⚠ PWB-C1~4	92LPWB2773PWRS	J	—	Power Amp./Power Supply/CD Servo/CD Digital (Combined Ass'y)
PWB-D	92LPWB2773TUNS	J	—	Tuner
PWB-E	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)
PWB-F	QPWBF0322AWZZ	J	AC	Tray Switch (PWB Only)
PWB-G	92PF567-613	J	AV	Tape 1 Mechanism
PWB-H	92PF567-612	J	AX	Tape 2 Mechanism
PWB-K	92LPWB2773LOGS	J	—	Pro Logic

CP-C3H

SPEAKER BOX PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
901	92L201L0CPC310	J	AX	Net Frame Ass'y,Left
901	92L201R0CPC310	J	AX	Net Frame Ass'y,Right
902	92L200L0CPC310	J	BE	Front Panel Ass'y,Left
902	92L200R0CPC310	J	BE	Front Panel Ass'y,Right
903	92L100L2CPC310	J	BF	Speaker Box Ass'y,Left
903	92L100R2CPC310	J	BF	Speaker Box Ass'y,Right
904	92L23036099010	J	AC	Holder,Catcher
905	92L22000CPC300	J	AD	Cushion,Front Panel
906	92L21000CPC300	J	AR	Holder,Woofer
907	92L6000CPC3H00	J	AC	Label,Specification
908	92L3141CPC3W10	J	AR	C1+Cord Ass'y (2.2 µF,100V,Film Capacitor)
909	92L44090210100	J	AE	Port Cushion
910	92L44210310100	J	AD	Cushion,Speaker Cord
911	92L411B930100P	J	AC	Screw,ø3×10mm
912	92L411B140100P	J		Screw,ø4×10mm
913	92L411S84016AB	J	AD	Screw,ø4×16mm
914	92L411B840160P	J	AD	Screw,ø4×16mm
SP1,2	VSP0016WBE56A	J	BE	Woofer
SP3,4	VSP0050TBK06A	J	AX	Tweeter
SP5,6	92L303R0300G10	J	AS	Super Tweeter

ACCESSORIES/PACKING PARTS

92L3191CPC1W00	J		Speaker Cord Ass'y
92L6100CPC3H00	J		Label,Feature,Speaker
92L70032001400	J		Polyethylene Bag,Speaker
92L71525002900	J		Mirror Mat Sheet
92L720FCPC3W00	J	AN	Packing Add.,Front,Speaker
92L720RCPC3W00	J	AN	Packing Add.,Rear,Speaker
92L74231001700	J		Pad,Speaker

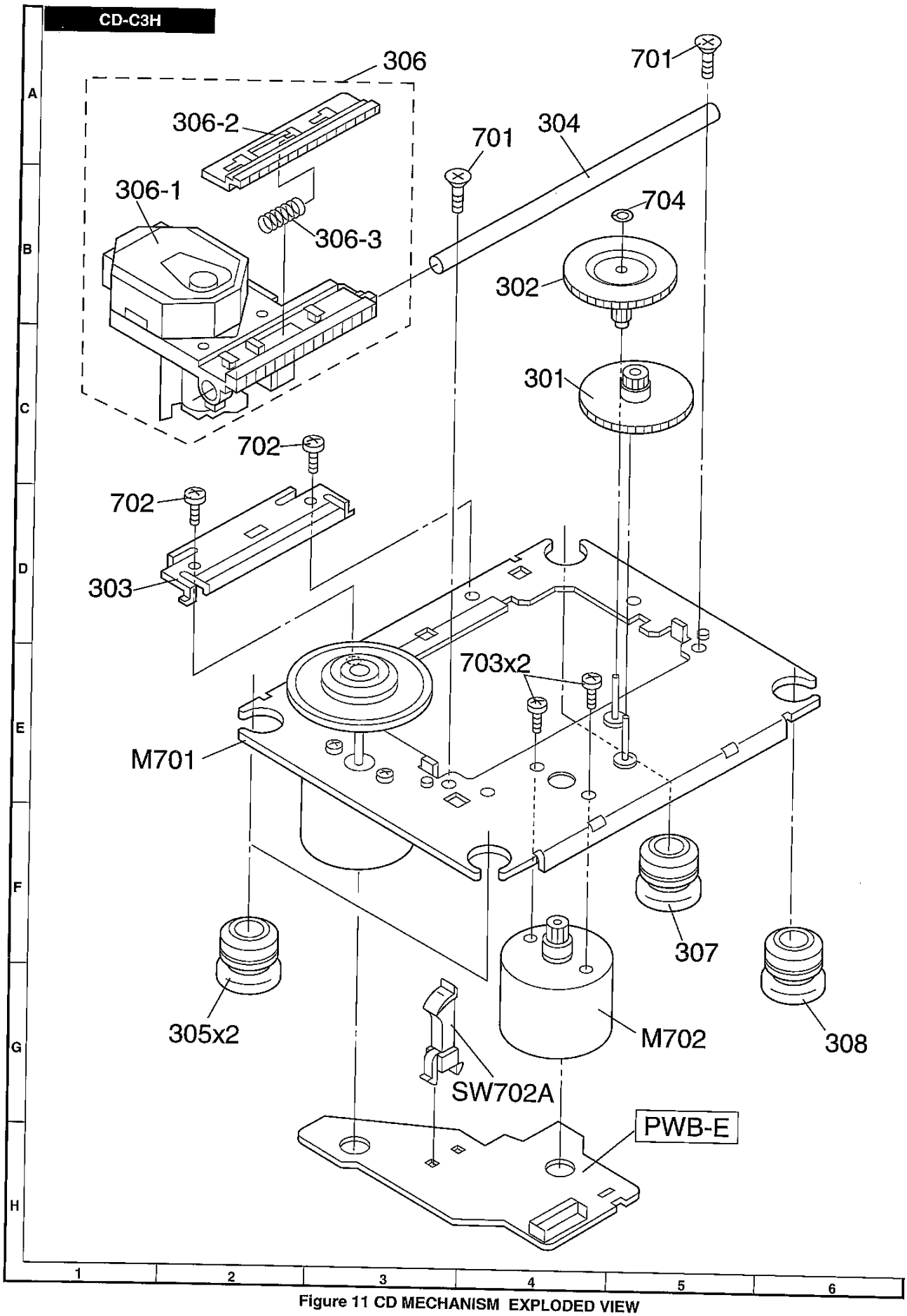


Figure 11 CD MECHANISM EXPLODED VIEW

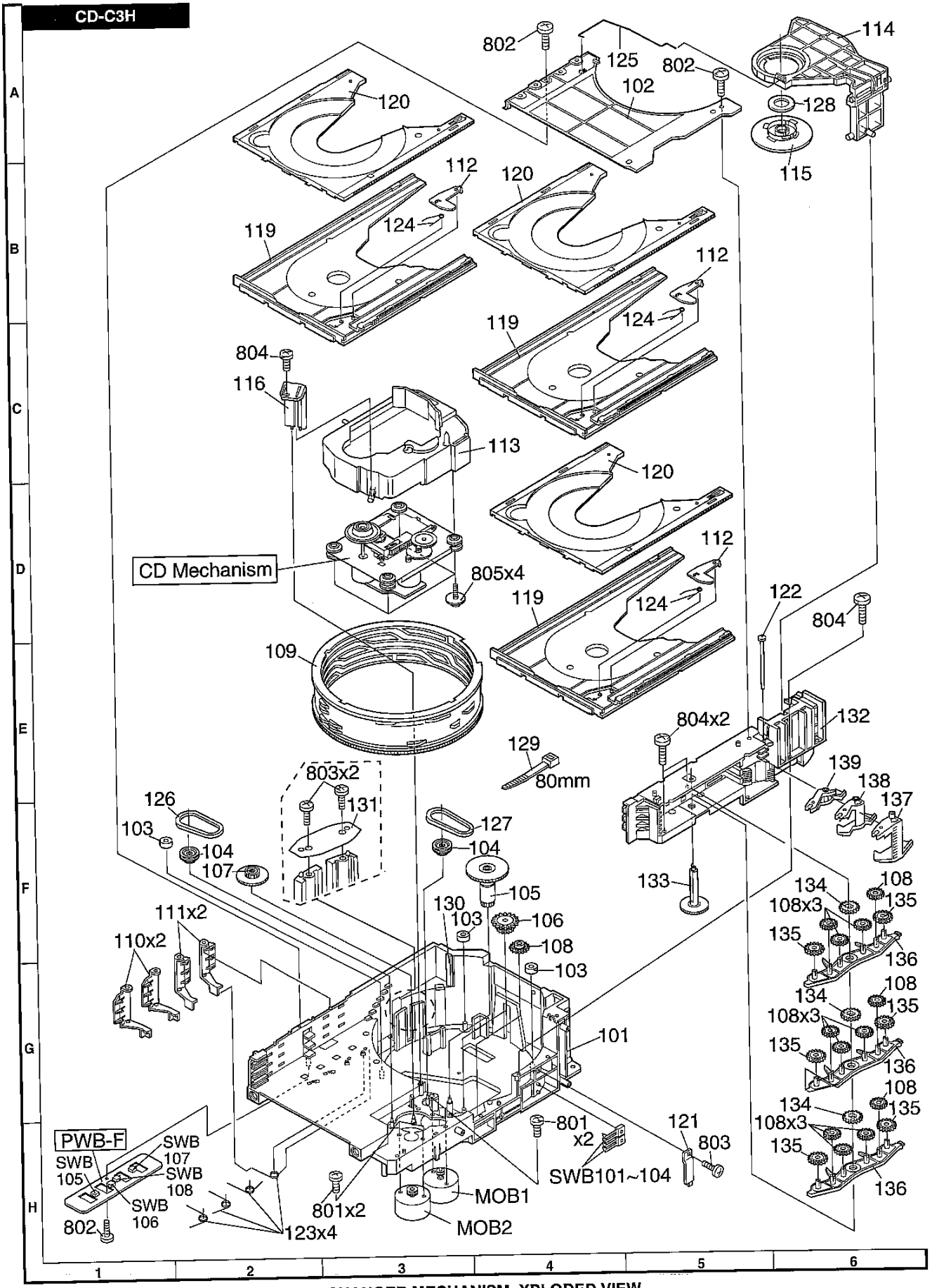


Figure 12 CHANGER MECHANISM XPLODED VIEW

CD-C3H

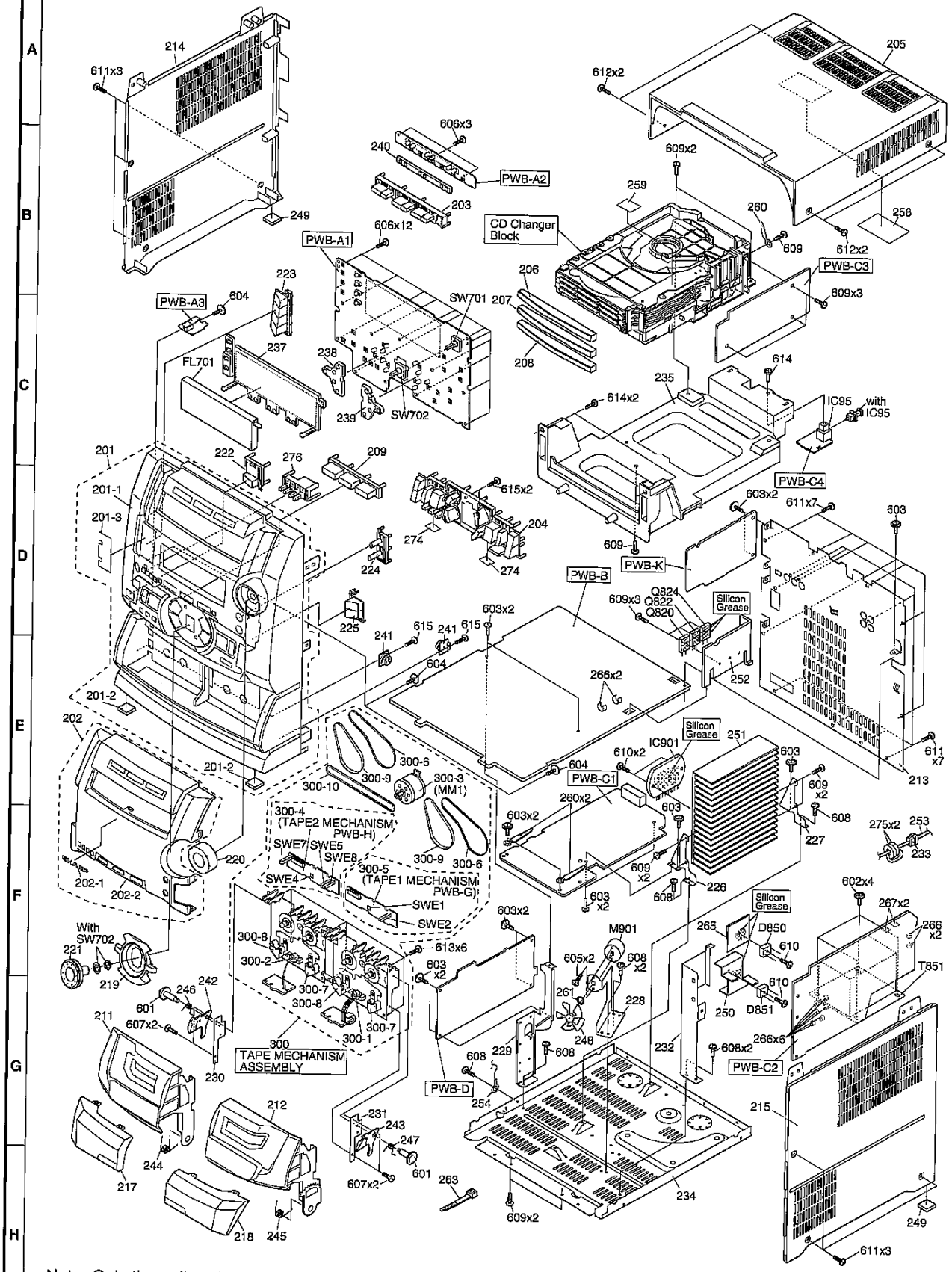


Figure 13 CABINET EXPLODED VIEW

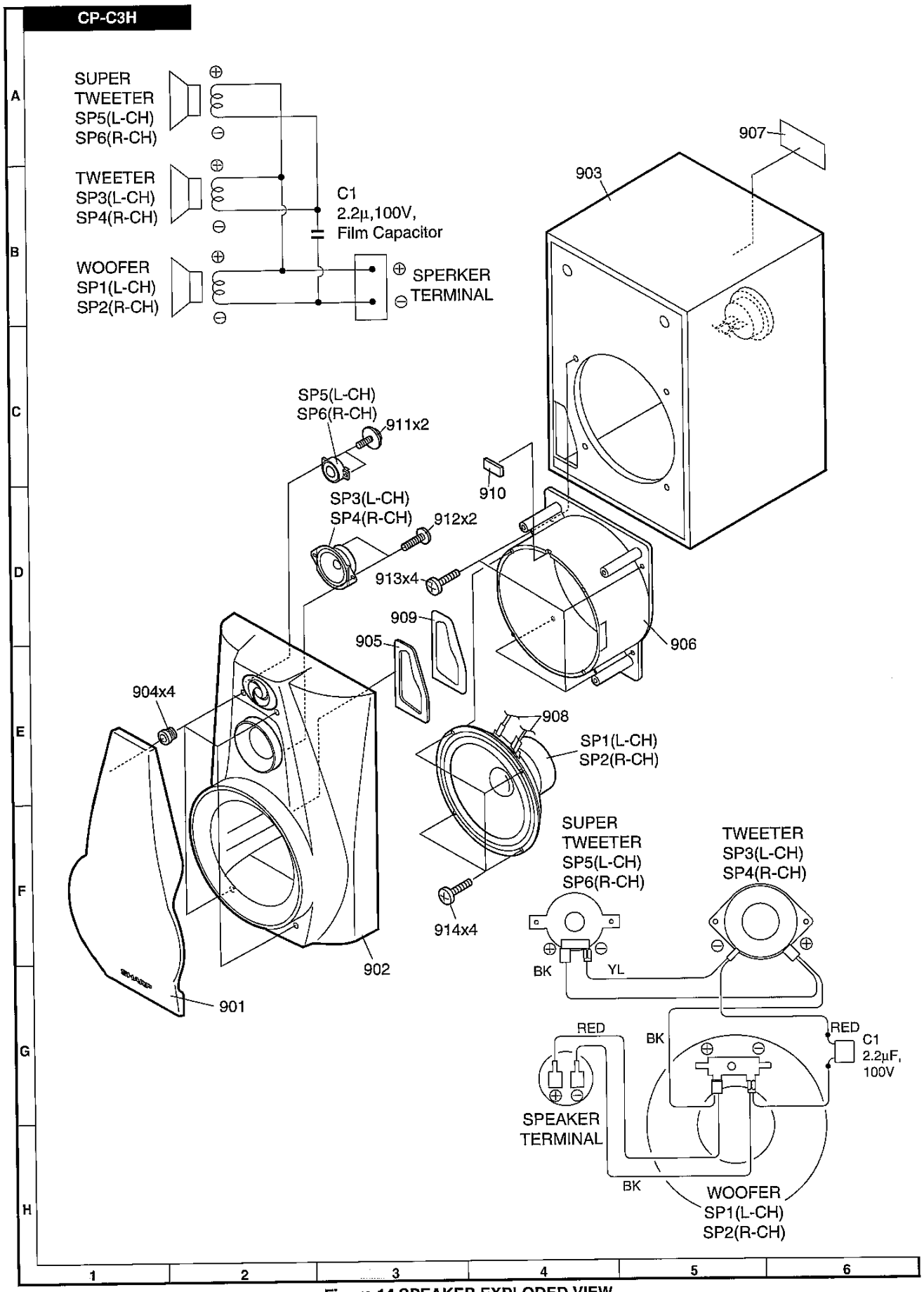


Figure 14 SPEAKER EXPLODED VIEW

— MEMO —

— MEMO —

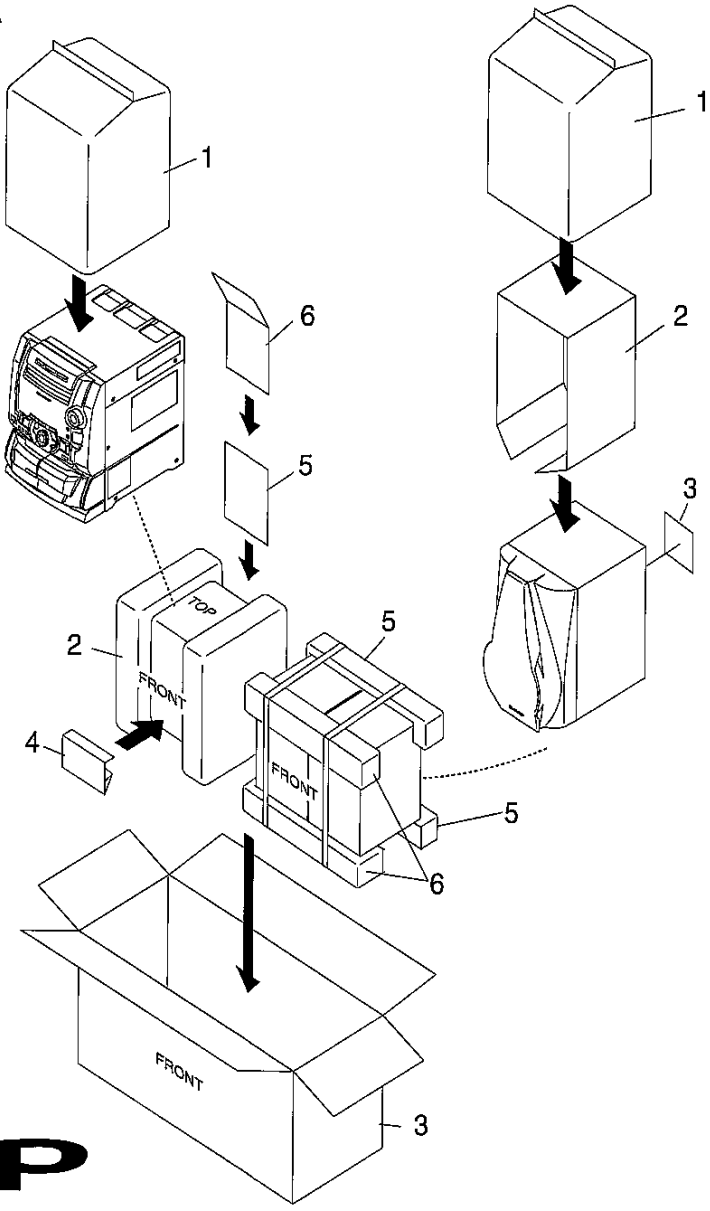
APCKING METHOD (FOR UK ONLY)

CD-C3H

1. Polyethylen Bag,Unit	SPAKP0032AWZZ
2. Packing Add.	SPAKA0193AWZZ
3. Packing Case	SPAKC0649AWZZ
4. Pad, Protection	SPAKZ0378AWZZ
5. Operation Manual	TINSE0210AWZZ
Remoto Control	PRMCG0128AWSA
Warranty Carg	TGAN-3170UMZZ
AM Loop Antenna	QANTL0005AWZZ
FM Antenna	92LFANT1535A

CP-C3H

1. Polyethylen Bag,Speaker	92L70032001400
2. Mirror Mat Sheet	92L71525002900
3. Label, Specifications	92L6000CPC3H00
4. Pad, Speaker	92L74231001700
5. Packing Add., Rear Speaker	92L720RCPC3W00
6. Packing Add., Front Speaker	92L720FCPC3W00



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